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FLOOD INSURANCE STUDY

ORIGINAL

GREEN COUNTY, WISCONSIN

UNINCORPORATED AREAS

REVISED:

SEPTEMBER 18, 1986

Federal Emergency Management Agency

COMMUNITY NUMBER - 550157

51

NOTICE TO
FLOOD INSURANCE STUDY USERS

Individual components of this Flood Insurance Study (i.e., text, tables, profiles, and maps) are subject to revision as additional data become available. Because revised components may be issued separately, study users should consult the community map repository for those components that are currently effective.

In cases where this Flood Insurance Study and any components thereof warrant revision, a Revisions Description section may be incorporated into this text. When applicable, study users should refer to the Revisions Description to obtain pertinent data and information concerning revisions.

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Flood Boundary and Floodway Map

PUBLISHED SEPARATELY:

Flood Insurance Rate Map Index
Flood Insurance Rate Map

FLOOD INSURANCE STUDY

COUNTY OF GREEN, WISCONSIN
UNINCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the unincorporated areas of Green County, Wisconsin, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study will be used to convert Green County to the regular program of flood insurance by the Federal Emergency Management Agency (FEMA). Local and regional planners will use this study in their efforts to promote sound flood plain management.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than those on which these Federally-supported studies are based. These criteria take precedence over the minimum Federal criteria for purposes of regulating development in the flood plain, as set forth in the Code of Federal Regulations at 44 CFR, 60.3(d). In such cases, however, it shall be understood that the state (or other jurisdictional agency) shall be able to explain these requirements and criteria.

1.2 Authority and Acknowledgments

The source of authority for this Flood Insurance Study is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency (FEMA) under Contract No. EMW-C-0065. This study was completed in May 1982.

1.3 Coordination

Streams requiring detailed and approximate study were identified at a meeting attended by representatives of the Study Contractor, the FEMA, the Wisconsin Department of Natural

Resources and Green County on June 6, 1979. Results of the hydrologic analyses were coordinated with the Wisconsin Department of Natural Resources, Flood Plain Management Section. On September 28, 1982 , the results of the work by the Study Contractor were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA and County officials.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the unincorporated areas of Green County, Wisconsin. The area of study is shown on the Vicinity Map (Figure 1).

The areas studied by detailed methods were selected with priority given to all known flood hazard areas, and areas of projected development or proposed construction for the next five years, through May 1987.

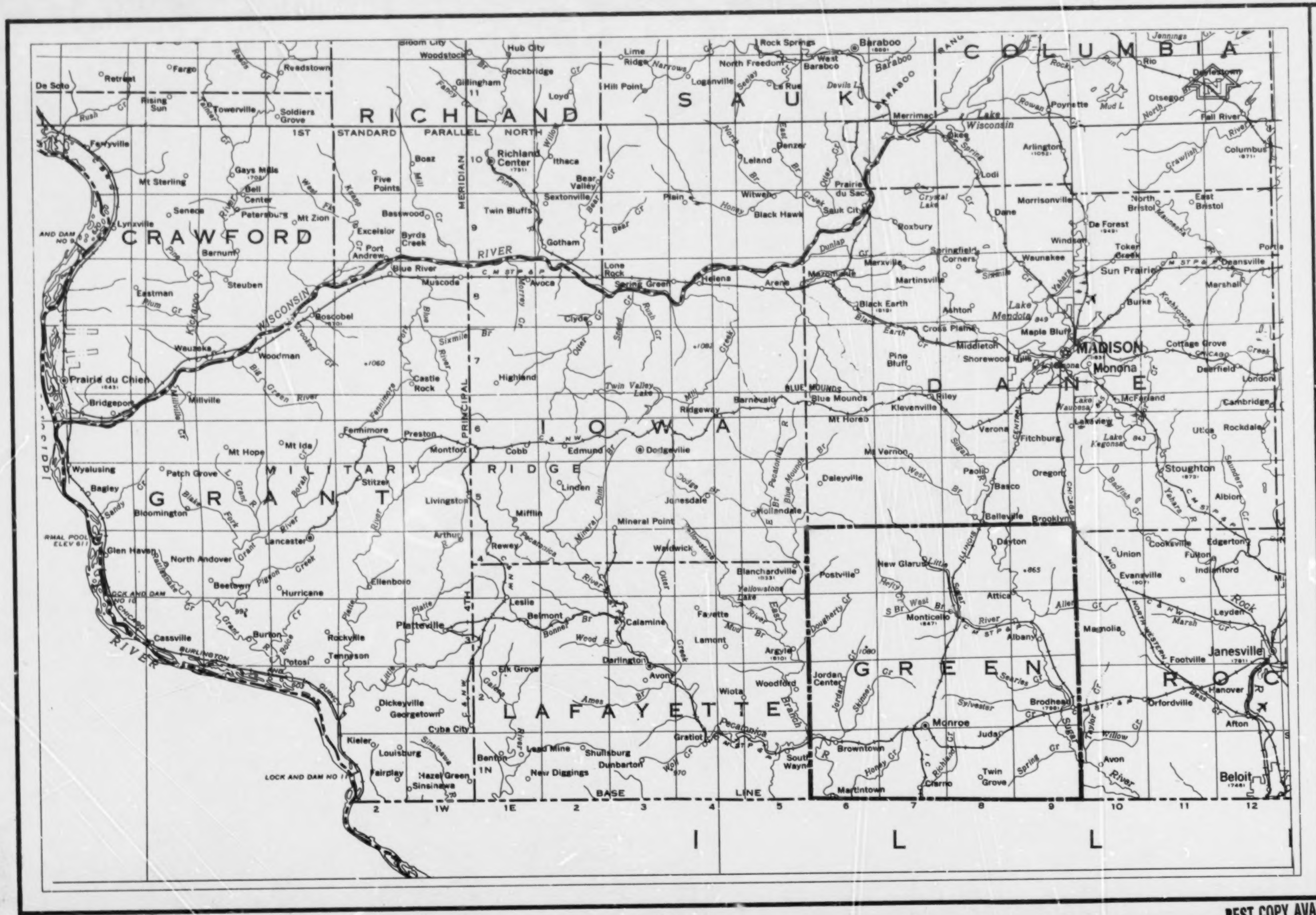
The flooding sources studied by detailed methods are listed in Table 1.

2.2 Community Description

Green County is located in southcentral Wisconsin, and is bordered by Rock, Dane, Iowa and Lafayette Counties, and on the south by Stephenson and Winnebago Counties (Illinois). The total land area contained within the county limits is approximately 585 square miles.

Green County was created in 1836. In 1980, its population was listed as 30,012 (Reference 1). Urban population centers within the county include the city of Monroe, and villages of Monticello, New Glarus, Albany and Brodhead.

The climate in southeastern Wisconsin is characterized by wide variations in temperatures. Average summer and winter temperatures for the years 1973 to 1977 ranged from 74 degrees Fahrenheit (F.) to 4 degrees F., respectively. Annual average precipitation of the region is 32.0 inches, with an average recorded snowfall of 38 inches. Precipitation is normally higher in the spring and summer months (Reference 1 and 2).



FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

VICINITY MAP

FIGURE 1

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TABLE 1: FLOODING SOURCES
DESCRIPTION OF STUDY LIMITS

FLOODING SOURCE	FROM	TO	DISTANCE (MILES)
DETAILED FLOODING SOURCES			
ALLEN CREEK	Mouth at Sugar River	Approximately 0.3 mile downstream of English Settlement Road	2.4
BRAYTON CREEK	Mouth at West Branch Little Sugar River	Approximately 0.5 mile northwest of Monticello corporate limits	1.0
HONEY CREEK	Franklin Road	Monroe Corporate Limits	1.9
JUDA BRANCH	County Highway OK	Approximately 0.2 mile downstream of Twin Grove Road	4.5
LEGLER SCHOOL BRANCH	Second Street	Approximately 0.5 mile upstream of Legler Valley Road	4.4
LITTLE SUGAR RIVER	Mouth at Albany Lake	Confluence of West Branch Little Sugar River	13.4
NORWEGIAN CREEK	Mouth at Sugar River Decatur Raceway	Rock County Line	3.0
PECATONICA RIVER	Stephenson County Line, Illinois	Lafayette County Line	11.9
RICHLAND CREEK	County Highway K	Greenbush Road	4.6

TABLE 1: FLOODING SOURCES
(continued)

FLOODING SOURCE	FROM	TO	DISTANCE (MILES)
SKINNER CREEK	Mouth at the Pecatonica River	Approximately 1.0 mile upstream of Scott Road	5.6
SUGAR RIVER	Rock County and Green County Line	Dane County and Green County Line	39.8
SUGAR RIVER DECATUR RACEWAY	Brodhead Corporate Limits	Decatur Lake	2.0
WEST BRANCH LITTLE SUGAR RIVER	Sugar River state trail	Approximately 0.8 mile upstream of Washington Road	2.3

The surface of Green County is characterized by undulating uplands in the western part and the broad flat-bottomed valley of the Sugar River in the eastern part. The highest elevations in the county, along the divide, between the Pecatonica and Sugar Rivers, are a little over 1,200 feet above sea level, while elevations in the northeastern part are about 1,000 feet (Reference 3).

The geological formations, exposed within the county, are the Lower Magnesian limestone, the St. Peter sandstone, and the Galena-Platteville (Trenton) limestone. The Galena forms the main upland areas, and the St. Peter and Lower Magnesian, the valley bottoms. Glacial drift in relatively thin deposits is scattered over most of the county, and the valleys are filled with alluvium to a variable depth (Reference 3).

2.3 Principal Flood Problems

The past history of flooding within Green County indicates that floods may occur during any season of the year. The majority of major floods on Sugar River, Little Sugar River and Pecatonica River have occurred in the early spring and are usually the result of spring rains and/or snowmelt. All other rivers in this study are smaller basins and, therefore, are more responsive to local heavy rains. Floods usually occur on these creeks during any of the warmer months of the year.

There are four gaging stations within the county: one each on the Pecatonica River (No. 05-4345), the Sugar River (No. 05-4365), a tributary of the Sugar River (No. 05-4362), and Skinner Creek (No. 05-4342). The drainage areas of the latter two are quite small and, therefore, flooding conditions at the gages would not have to be indicative of general flooding conditions within the county. The Pecatonica River Gage is located at Martintown, Wisconsin, and has a contributing drainage area of approximately 1,040 square miles. The gage has been in continual operation since 1940, with a single year of record for 1916. Major recorded floods have been experienced in the springs of 1916, 1948, 1959, 1960 and 1969. The expected frequency of these floods were once every 22 years, 18 years, 24 years, 16 years and 31 years respectively.

The Sugar River gage is located near Brodhead, Wisconsin, and has a drainage area of approximately 527 square miles. The gage has been in operation since 1914. Major recorded floods have occurred in the years 1915, 1922, 1929, 1948 and 1960. The expected frequency of these floods were once every 30 years, 11 years, 15 years, 11 years, and 12 years respectively.

Obstructions to flood flow are both natural and manmade. Natural obstructions include trees and other vegetation growing along stream banks and floodway areas. Manmade obstructions include numerous dams and bridges within the study reaches. Any of the manmade obstructions and some of the natural obstructions, such as trees for example, can collect floating debris and thereby create a greater flood hazard due to greater depths (backwater effect) upstream of these areas. Since the amount of debris is an indeterminate factor, only the existing physical characteristics can be considered in determining the backwater effect. (See Figures 2 through 15 for future flood heights at various locations).

2.4 Flood Protection Measures

There are numerous dams within Green County. Most were built for recreational purposes and/or hydroelectric power generation. The lakes within our study reaches do not provide attenuation of peak discharges on the watercourses where they are located and, therefore, provide little in the way of flood protection.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude which are expected to be equalled or exceeded once on the average during any 10, 50, 100 or 500-year period (recurrence interval) have been selected as having special significance for flood plain management and for flood insurance premium rates. These events, commonly termed the 10, 50, 100 and 500-year floods, have a 10, 2, 1 and 0.2 per cent chance respectively of being equalled or exceeded during any year.

Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk

FIGURE 2 - Estimated Flood Heights
County Highway E Bridge over Allen Creek
Section B. 100-Year Flood Elevation: 813.0

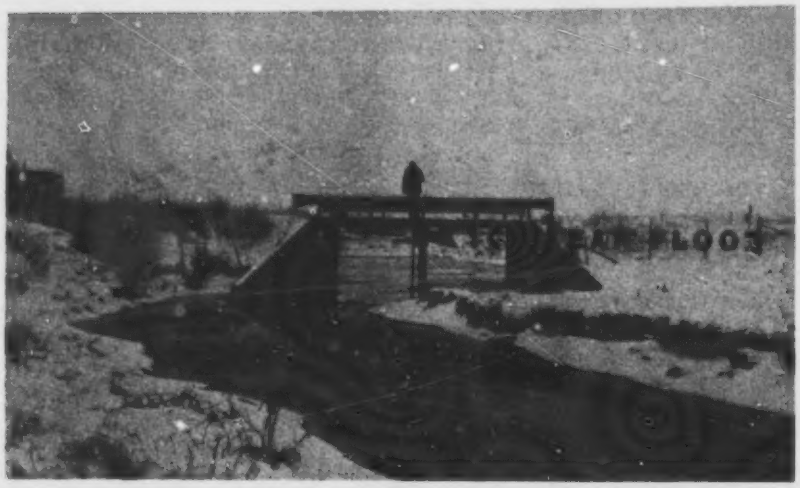

FIGURE 3 - Estimated Flood Heights
Franklin Road Bridge over Honey Creek
Section A. 100-Year Flood Elevation: 931.3

FIGURE 4 - Estimated Flood Heights
County Highway OK Bridge over Juda Branch
Section A. 100-Year Flood Elevation: 798.7

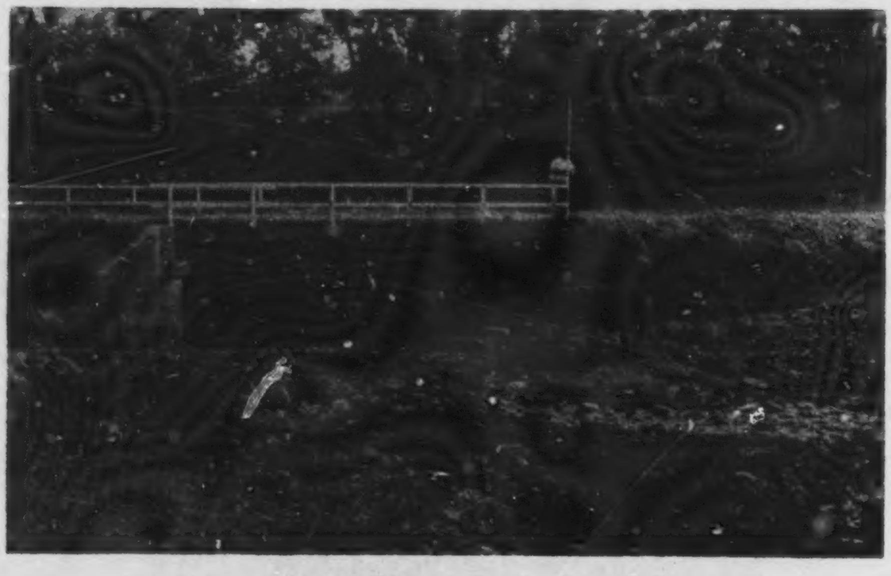

FIGURE 5 - Estimated Flood Heights
Legler Valley Road Bridge over Legler School Branch
Section Q. 100-Year Flood Elevation: 953.7

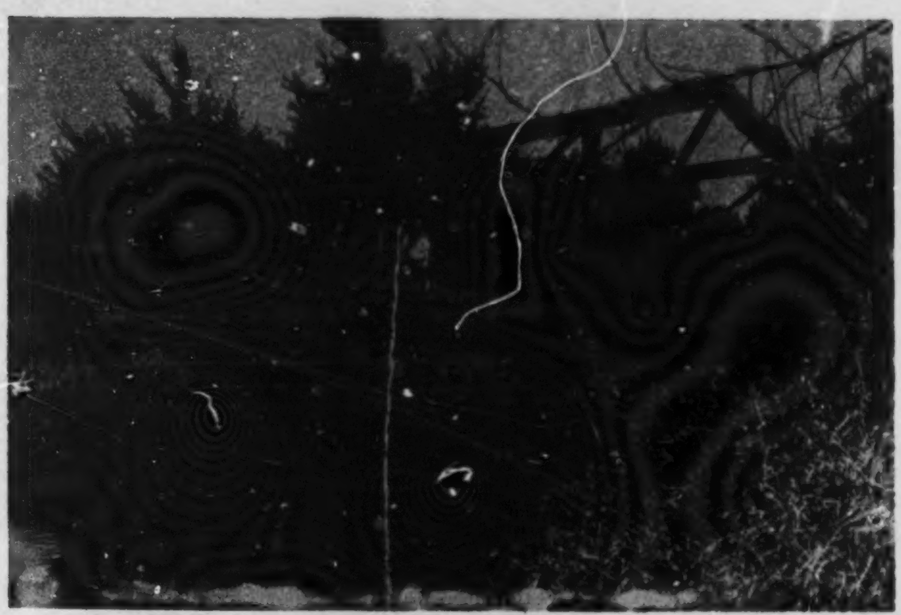

FIGURE 6 - Estimated Flood Heights
Milbrandt Road Bridge over Little Sugar River
Section O. 100-Year Flood Elevation: 817.2

FIGURE 7 - Estimated Flood Heights
River Road Bridge over Little Sugar River
Section W. 100-Year Flood Elevation: 823.1

FIGURE 8 - Estimated Flood Heights
County Highway E Bridge over Norwegian Creek
Section H. 100-Year Flood Elevation: 798.7

FIGURE 9 - Estimated Flood Heights
County Highway M Bridge over Pecatonica River
Section C. 100-Year Flood Elevation: 783.6

FIGURE 10 - Estimated Flood Heights
County Highway K Bridge over Richland Creek
Section A. 100-Year Flood Elevation: 899.9

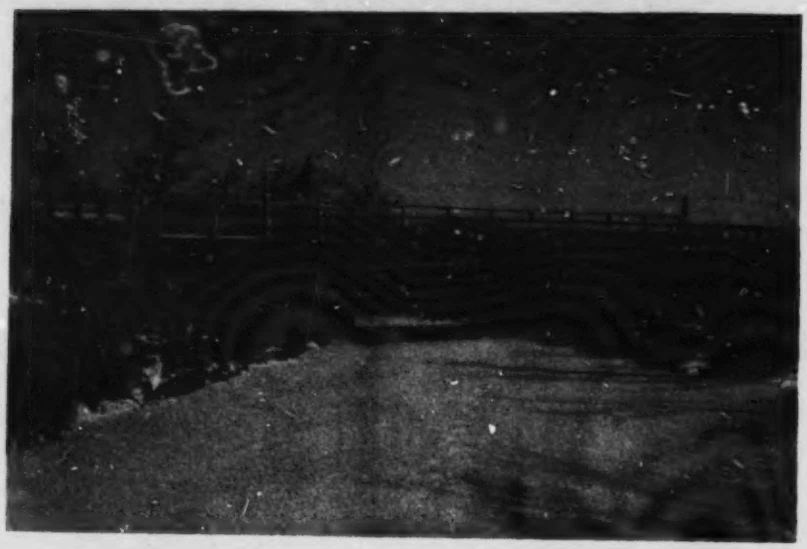

FIGURE 11 - Estimated Flood Heights
State Highway 11 Bridge over Skinner Creek
Section B. 100-Year Flood Elevation: 789.6

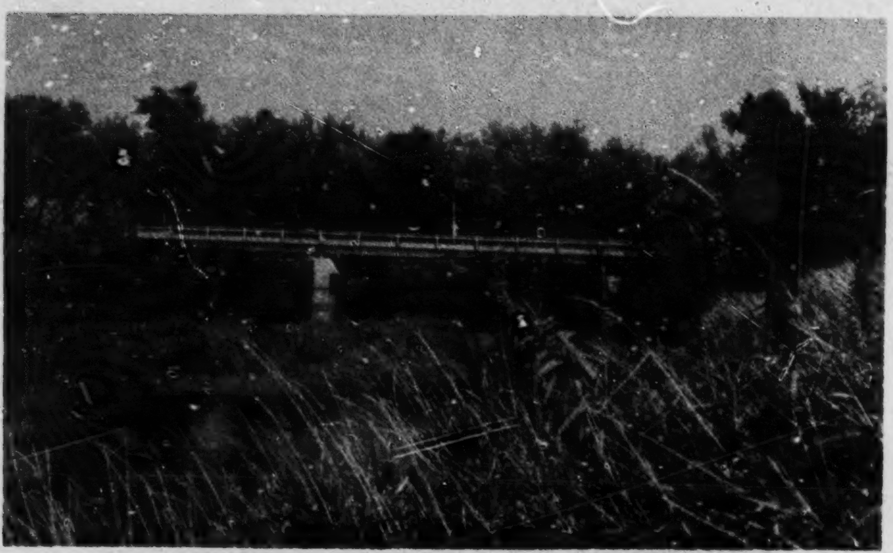

FIGURE 12 - Estimated Flood Heights
County Highway T Bridge over Sugar River
Section A. 100-Year Flood Elevation: 764.2

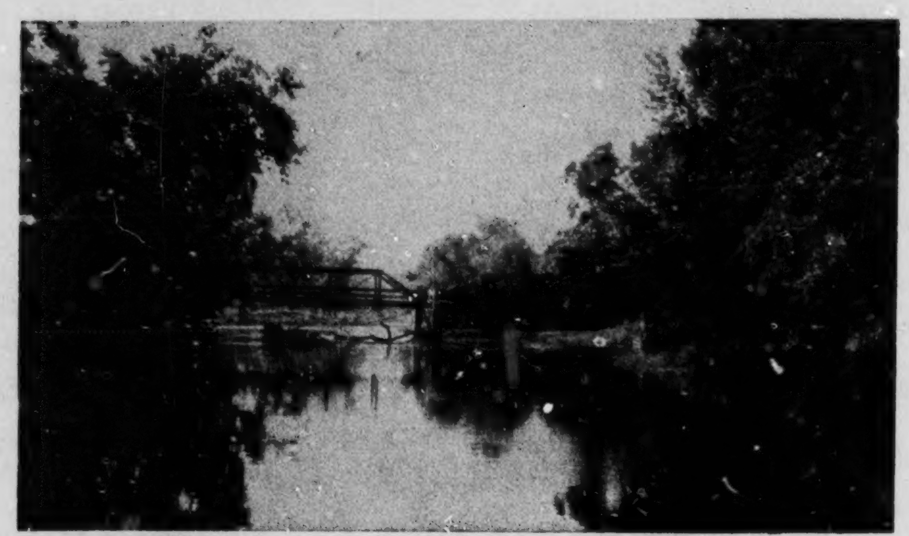

FIGURE 13 - Estimated Flood Heights
Decatur Road Bridge over Sugar River
Section AC. 100-Year Flood Elevation: 786.4

FIGURE 14 - Estimated Flood Heights
County Highway C Bridge over Sugar River
Section BJ. 100-Year Flood Elevation: 824.2

FIGURE 15 - Estimated Flood Heights
Illinois Central Railroad Bridge over Sugar River
Section B. 100-Year Flood Elevation: 827.6

of experiencing a rare flood increases when periods of greater than one year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (one per cent chance of annual occurrence) in any 50-year period is about 40 per cent (four in ten), and for any 90-year period, the risk increases to about 60 per cent (six in ten). The analyses reported here reflect flooding potentials based on conditions existing in the county at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each flooding source studied in detail affecting the county.

The hydrologic analysis for both the Sugar River and the Pecatonica River were based on a Log Pearson Type III Distribution, using a zero skew, of the available stream gage records for the respective river. These discharges were then adjusted by drainage basin size, using a .6 exponent.

The hydrologic analysis for the raceway at Decatur Lake was based on hand weir calculations of discharges, using the lake stages derived for the Sugar River. The non-typical increase in flows, as you progress upstream, is based on the dike separating the Sugar River from Decatur Raceway being overtopped. Therefore, a portion of the discharges, which were originally within the raceway, spill over the embankment and are combined with those of the Sugar River main channel.

The hydrologic analyses for the remaining rivers studied by detailed methods, within Green County, were carried out, using a combination of two different methods. The first utilizes the methodology outlined in the U.S. Department of Agriculture, Soil Conservation Service (SCS), National Engineering Handbook (Reference 4). Using this procedure, the time of concentration and the time of peak are computed for the basin and a unit hydrograph is developed. The expected 6-hour rainfall for the desired frequency event was obtained from Technical Paper 40 (Reference 2), and distributed into 30-minute amounts as described in the SCS criteria for design storms.

A 6-hour duration storm was chosen since it was determined to be the "effective duration" for areas having an average annual precipitation of approximately 30 inches. Rainfall excess is computed for accumulated rainfall, using an SCS runoff equation which equates runoff as a function of soil type, antecedent moisture conditions, and land use. Utilizing these precipitation data and the derived unit hydrograph, an outflow hydrograph is computed for the basin.

The second method involves the use of the State of Wisconsin's multiple regression equations for ungaged basins. The derivation of these equations, the applicability, and the assumptions involved are described in Estimating Magnitude and Frequency of Floods in Wisconsin by Duane H. Conger (Reference 5). These equations use basin size, main channel slope, per cent lake and marsh, and an areal factor as independent variables. The first method was applicable to Allen Creek, Brayton Creek, Honey Creek, Juda Branch, Legler School Brook, Norwegian Creek, and Richland Creek, while the second was used for the Little Sugar River, Skinner Creek and the West Branch of the Little Sugar River.

The discharges, derived by the chosen method, were compared with discharge-frequency distributions developed for similar gaged basins and were found to be consistent.

A summary of drainage area-peak discharge relationships appears in Table 2.

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the streams within the county were carried out to provide estimates of the elevations of the floods of the selected recurrence intervals along each flooding source studied in detail.

The cross sections used for the study were obtained by photogrammetric techniques and contour maps generated as a result of this study (Reference 6).

All bridge elevation data and structural geometry for the backwater analyses of each flooding source studied were obtained by field surveys by the Study Contractor. The channel soundings were also obtained by field measurement.

TABLE 2 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQUARE MILES)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
ALLEN CREEK					
Upstream of Sugar River	73.0	2570	4400	5200	7500
BRAYTON CREEK					
Upstream of Monticello Corporate Limits	3.6	435	785	945	1450
HONEY CREEK					
Upstream of Franklin Road	7.3	850	1400	1650	2350
Upstream of Chicago, Milwaukee, St. Paul and Pacific Railroad	5.6	720	1200	1400	2000
JUDA BRANCH					
Upstream of County Highway OK	16.6	1200	2160	2650	4200
Upstream of County Highway KS	7.8	600	1105	1370	2220
Upstream of Section L	1.9	160	300	375	500
LEGLER SCHOOL BRANCH					
Upstream of New Glarus Corporate Limits	4.7	500	900	1100	1650
Upstream of Section E	3.6	400	700	850	1275
Upstream of Section H	2.5	340	600	750	1125
Upstream of Section L	1.6	260	470	575	850
Upstream of Legler Valley Road	1.1	200	350	450	675
LITTLE SUGAR RIVER					
Upstream of Sugar River	135.0	3600	7000	8700	13700
Upstream of Milbrant Road	116.0	3300	6400	8000	12500
Upstream of Section U	106.0	3100	6000	7600	11800
Upstream of Section X	81.0	2600	5100	6500	10000

TABLE 2 - SUMMARY OF DISCHARGES

(continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQUARE MILES)	PEAK DISCHARGES (cfs)			
		10-YEAR	50-YEAR	100-YEAR	500-YEAR
NORWEGIAN CREEK					
Upstream of Sugar River Decatur Raceway	20.2	1500	2600	3250	4800
Upstream of County Highway E	14.8	1250	2150	2700	4000
PECATONICA RIVER					
Upstream of Wisconsin-Illinois State Line	1034.0	12500	19000	22500	30000
Upstream of County Highway Z	970.0	12900	18500	21700	28500
RICHLAND CREEK					
Upstream of County Highway K	8.4	900	1550	1900	2800
Upstream of Section F	5.0	650	1150	1400	2050
Upstream of State Highway 11 and 81	2.0	400	650	800	1150
SKINNER CREEK					
Upstream of Pecatonica River	71.9	1900	4000	5000	7800
Upstream of State Highway 11	49.6	1500	3200	4000	6200
SUGAR RIVER					
Upstream of Rock and Green County Line	621.0	10500	18900	23400	35800
Upstream of Section F	582.0	10100	18200	22500	34250
Upstream of Section H	571.0	10000	18000	22250	34000
Upstream of Section Q	527.0	9300	17000	21200	33300
Upstream of Section Z	502.0	8700	16400	20600	32700
Upstream of Section AI	478.0	8800	16000	20000	31400
Upstream of Albany Corporate Limits	382.0	7700	14000	17500	27500
Upstream of Section AY	296.0	6600	12000	15000	23500
Upstream of County Highway X	233.0	5700	10400	13000	20400
Upstream of Section CH	176.0	4800	8800	11000	17200

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TABLE 2 - SUMMARY OF DISCHARGES

(continued)

FLOODING SOURCE AND LOCATION	(SQUARE MILES)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
SUGAR RIVER DECATUR RACEWAY					
Upstream of Brodhead Corporate Limits	502.0	600	600	600	600
Upstream of Section B	502.0	600	700	800	900
Upstream of Section C	502.0	600	1000	1000	1200
Upstream of Section E	502.0	600	1400	1500	2000
WEST BRANCH LITTLE SUGAR RIVER					
Upstream of Little Sugar River	40.0	1700	3550	4400	6700
Upstream of Monticello Corporate Limits	35.0	1570	3275	4060	6185

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the Flood Boundary and Floodway Map (Exhibit 2).

Channel roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and based on field observations of the streams and flood plain areas. The Manning's "n" values are shown in Table 3. The acceptability of all assumed hydraulic factors, cross sections, and hydraulic structure data was checked by computations that duplicated historic floodwater profiles whenever possible.

Starting water surface elevations for each flooding source studied in detail are shown in Table 4.

Water-surface elevations were computed using the Corps of Engineers HEC-2 step-backwater computer program (Reference 10).

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations, as shown on the profiles, are, therefore, considered valid only if hydraulic structures, in general, remain unobstructed and if channel and overbank conditions remain essentially the same as ascertained during this study.

All elevations are referenced from National Geodetic Vertical Datum 1929 (NGVD); elevation reference marks used in the study are shown on the maps.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages State and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study includes a flood boundary map designed to assist communities in developing sound flood plain management measures.

4.1 Flood Boundaries

In order to provide a national standard, without regional discrimination, the 100-year flood has been adopted by FEMA as the base flood for purposes of flood plain management measures. The 500-year flood is employed to indicate additional areas of flood risk in the county. For each stream

TABLE 3 - MANNING'S "n" VALUES

STREAM	CHANNEL	OVERBANKS
Allen Creek	0.04	0.13
Brayton Creek	0.04	0.075
Honey Creek	.035 to 0.04	0.065 to 0.07
Juda Branch	0.04 to 0.045	0.07 to 0.075
Legler School Branch	0.045	0.10 to 0.13
Little Sugar River	0.045	0.07 to 0.08
Norwegian Creek	0.04 to 0.045	0.09 to 0.13
Pecatonica River	0.035 to 0.04	0.065 to 0.095
Richland Creek	0.045	0.09 to 0.12
Skinner Creek	0.035 to 0.04	0.07 to 0.10
Sugar River	0.02 to 0.06	0.07 to 0.16
Sugar River Decatur Raceway	0.03	0.09 to 0.10
West Branch Little Sugar River	0.035 to 0.045	0.065 to 0.075

TABLE 4
STARTING WATER SURFACE ELEVATIONS

STREAM	STARTING WATER SURFACE ELEVATION OBTAINED FROM:
Allen Creek	Sugar River 10-Year Flood Elevation at Confluence
Brayton Creek	West Branch Little Sugar River 10-Year Flood Elevation at Confluence
Honey Creek	Normal Depth Analysis Utilizing the Computer Program HOBCW (Reference 7)
Juda Branch	Normal Depth Analysis Utilizing the Computer Program HOBCW (Reference 7)
Legler School Branch	Little Sugar River 10-Year Flood Elevation at Confluence
Little Sugar River	Sugar River 10-Year Flood Elevation at Confluence
Norwegian Creek	Sugar River 10-Year Flood Elevation at Confluence
Pecatonica River	Winslow, Illinois Flood Insurance Study (Reference 8)
Richland Creek	Normal Depth Analysis Utilizing the Computer Program HOBCW (Reference 7)
Skinner Creek	Normal Depth Analysis Utilizing the Computer Program HOBCW (Reference 7)
Sugar River	Rock County, Wisconsin Flood Insurance Study (Reference 9)
Sugar River-Decatur Raceway	Sugar River 100-Year Flood Elevation at Confluence
West Branch Little Sugar River	Little Sugar River 100-Year Flood Elevation at Confluence

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studied in detail, the boundaries of the 100-year and the 500-year floods have been delineated, using the elevations determined at each cross section; between cross sections, the boundaries were interpolated, using topographic maps generated for this study at a scale of 1:4800, with a contour interval of two feet (Reference 6).

The boundaries of the 100 and 500-year floods are shown on the Flood Boundary and Floodway Map (Exhibit 2). Small areas within the flood boundaries may lie above the flood elevations and, therefore, not be subject to flooding. Owing to the lack of detailed topographical information or to limitations of the map scale, such areas are not shown. In cases where the 100-year and the 500-year flood boundaries are close together, only the 100-year boundary has been shown.

Flood plain delineations for river courses studied by approximate means were taken from available flood hazard boundary maps for Green County (Reference 14).

4.2 Floodways

Encroachment of flood plains, such as artificial fill, reduces the flood-carrying capacity, increases the flood heights of streams, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard.

For purposes of the National Flood Insurance Program, the concept of a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment in order that the 100-year flood may be carried without substantial increases in flood heights. Minimum standards of the FEMA limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced. However, the Wisconsin Department of Natural Resources has established a policy that limits encroachment in the flood plain to 0.1 foot (Reference 11).

The floodways presented in this study were computed on the basis of equal conveyance reduction from each side of the flood plain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was computed (Table 5). Portions of Brayton Creek, Legler School Branch, Skinner Creek and the Sugar River studied in detail lie outside the unincorporated areas.

As shown on the Flood Boundary and Floodway Map (Exhibit 2), the floodway boundaries were determined at cross sections; between cross sections, the boundaries were interpolated. In cases where the boundaries of the floodway and the 100-year flood are either close together or collinear, only the floodway boundary has been shown.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point.

Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 16.

The floodways in the report are recommended to local agencies as minimum standards that can be adopted or that can be used as a basis for additional studies.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
ALLEN CREEK								
A	1600	1022	4880	1.1	811.2	807.2[2]	807.2[2]	0.0
B	5621	543	2668	1.9	812.9	812.9	812.9	0.0
C	7321	853	4430	1.2	814.9	814.9	814.9	0.0
D	8471	803	4147	1.3	815.6	815.6	815.6	0.0
E	9311	759	2728	1.9	816.5	816.5	816.5	0.0
F	10561	598	2859	1.8	818.4	818.4	818.4	0.0
G	11701	874	4014	1.3	820.0	820.0	820.0	0.0
H	12771	1135	4667	1.1	820.9	820.9	820.9	0.0
BRAYTON CREEK								
A	300	335/90[3]	670	1.4	837.1	833.6[4]	833.6[4]	0.0
B	760	99/0[3]	302	3.1	837.1	834.0[4]	834.0[4]	0.0
C	1391	330/0[3]	1343	0.7	839.0	839.0	839.0	0.0
D	2591	529/450[3]	1131	0.8	839.2	839.2	839.2	0.0
E	3531	472/310[3]	646	1.5	840.6	840.6	840.6	0.0
F	5191	142	314	3.0	845.1	845.1	845.1	0.0

[1] FEET ABOVE MOUTH

[2] ELEVATIONS COMPUTED WITHOUT CONSIDERING BACKWATER EFFECTS FROM THE SUGAR RIVER

[3] TOTAL WIDTH/WIDTH WITHIN UNINCORPORATED AREAS

[4] ELEVATIONS COMPUTED WITHOUT CONSIDERING BACKWATER EFFECTS FROM THE WEST BRANCH LITTLE SUGAR RIVER

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOODWAY DATA

ALLEN CREEK - BRAYTON CREEK

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
HONEY CREEK								
A	58415	26	164	10.1	931.3	931.3	931.3	0.0
B	60580	346	412	4.0	940.8	940.8	940.8	0.0
C	62260	227	451	3.7	948.6	948.6	948.6	0.0
D	64092	229	698	2.4	963.9	963.9	963.9	0.0
E	65468	127	267	5.2	972.0	972.0	972.0	0.0
F	66428	103	398	3.5	977.3	977.3	977.3	0.0
G	67253	152	478	2.9	979.6	979.6	979.6	0.0
H	68398	132	451	3.1	986.0	986.0	986.0	0.0
JUDA BRANCH								
A	11000	979	1426	1.9	798.7	798.7	798.7	0.0
B	12960	283	973	2.7	800.6	800.6	800.6	0.0
C	14910	802	1141	2.3	803.7	803.7	803.7	0.0
D	16050	577	1211	2.2	805.4	805.4	805.4	0.0
E	17770	23	228	11.6	808.1	808.1	808.1	0.0
F	20030	800	2153	1.2	812.1	812.1	812.1	0.0
G	21330	509	1712	1.5	815.4	815.4	815.4	0.0
H	22386	700	1935	1.4	817.1	817.1	817.1	0.0
I	23636	42	223	6.1	820.6	820.6	820.6	0.0
J	24536	340	1232	1.1	823.6	823.6	823.6	0.0
K	25986	769	1090	1.3	824.1	824.1	824.1	0.0
L	27276	81	97	3.9	827.8	827.8	827.8	0.0
M	27836	81	144	2.6	831.0	831.0	831.0	0.0
N	31493	93	213	1.8	857.8	857.8	857.8	0.0
O	33593	291	137	2.7	889.3	889.3	889.3	0.0
P	34843	59	92	4.1	903.7	903.7	903.7	0.0

[1] FEET ABOVE MOUTH

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOODWAY DATA

HONEY CREEK - JUDA BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
LEGLER SCHOOL BRANCH								
A	1501	547/370[2]	684	1.6	859.2	859.2	859.2	0.0
B	2461	536	659	1.7	862.2	862.2	862.2	0.0
C	3661	353	473	2.3	867.1	867.1	867.1	0.0
D	5261	408	388	2.8	872.4	872.4	872.4	0.0
E	7101	67	230	3.7	877.5	877.5	877.5	0.0
F	7981	63	154	5.5	882.2	882.2	882.2	0.0
G	8923	391	523	1.6	885.6	885.6	885.6	0.0
H	10083	499	570	1.3	888.6	888.6	888.6	0.0
I	10603	424	423	1.8	890.7	890.7	890.7	0.0
J	12683	449	599	1.3	898.2	898.2	898.2	0.0
K	14257	363	481	1.6	903.3	903.3	903.3	0.0
L	16103	85	175	3.3	911.0	911.0	911.0	0.0
M	17103	124	231	2.5	916.7	916.7	916.7	0.0
N	18023	196	209	2.8	923.5	923.5	923.5	0.0
O	20263	221	305	1.9	934.6	934.6	934.6	0.0
P	21703	145	153	2.9	945.5	945.5	945.5	0.0
Q	22398	76	156	2.9	953.7	953.7	953.7	0.0
R	23438	41	88	5.1	969.9	969.9	969.9	0.0
S	24678	132	163	2.8	990.7	990.7	990.7	0.0

[1] FEET ABOVE MOUTH

[2] TOTAL WIDTH/WIDTH WITHIN UNINCORPORATED AREAS

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

LEGLER SCHOOL BRANCH

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
LITTLE SUGAR RIVER								
A	1080	1854	7614	1.1	808.3	803.3[2]	803.3[2]	0.0
B	5905	2144	7038	1.2	808.3	806.4[2]	806.4[2]	0.0
C	8588	5887	12392	0.7	808.3	807.5[2]	807.5[2]	0.0
D	11502	5220	14152	0.6	808.3	808.0[2]	808.0[2]	0.0
E	13632	4170	13886	0.6	808.3	808.1[2]	808.1[2]	0.0
F	16072	2832	12271	0.7	808.3	808.3	808.3	0.0
G	18712	2300	8650	1.0	809.0	809.0	809.0	0.0
H	21182	1495	5985	1.5	809.7	809.7	809.7	0.0
I	24022	1400	6076	1.4	811.4	811.4	311.4	0.0
J	26582	1425	7636	1.1	812.1	812.1	812.1	0.0
K	29612	1195	5393	1.6	813.0	813.0	813.0	0.0
L	33312	1565	8993	1.0	814.8	814.8	814.8	0.0
M	36072	1950	8064	1.1	815.3	815.3	815.3	0.0
N	39272	1568	6141	1.4	816.3	816.3	816.3	0.0
O	43453	1685	8298	1.0	817.3	817.3	817.3	0.0
P	45093	1625	8070	1.0	817.7	817.7	817.7	0.0
Q	47893	1579	6485	1.2	818.0	818.0	818.0	0.0
R	51843	1046	4774	1.7	819.5	819.5	819.5	0.0
S	53683	1182	5929	1.3	820.2	820.2	820.2	0.0
T	54553	1280	4318	1.9	820.8	820.8	820.8	0.0
U	58203	2320	8707	0.9	821.8	821.8	821.8	0.0
V	61303	1861	7218	1.1	822.3	822.3	822.3	0.0
W	63524	1350	5951	1.3	823.1	823.1	823.1	0.0
X	67264	1333	6817	1.0	824.1	824.1	824.1	0.0
Y	70684	1178	4706	1.4	824.9	824.9	824.9	0.0

[1] FEET ABOVE MOUTH

[2] ELEVATIONS COMPUTED WITHOUT CONSIDERING BACKWATER EFFECTS FROM THE SUGAR RIVER

TABLE 5	FEDERAL EMERGENCY MANAGEMENT AGENCY **GREEN COUNTY, WI** (UNINCORPORATED AREAS)	**FLOODWAY DATA** **LITTLE SUGAR RIVER**

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
NORWEGIAN CREEK								
A	750	494	3955	0.8	792.0	789.0[2]	789.0[2]	0.0
B	1519	452	830	3.9	792.0	789.4[2]	789.4[2]	0.0
C	3159	185	1138	2.9	792.1	792.1	792.1	0.0
D	4379	517	3249	1.0	793.3	793.3	793.3	0.0
E	5959	215	1316	2.5	795.2	795.2	795.2	0.0
F	6989	1000	4762	0.7	796.2	796.2	796.2	0.0
G	8109	1135	5946	0.5	796.4	796.4	796.4	0.0
H	10255	656	2777	1.0	798.7	798.7	798.7	0.0
I	11535	701	3014	0.9	799.2	799.2	799.2	0.0
J	12665	930	1986	1.4	800.2	800.2	800.2	0.0
K	14215	585	1755	1.5	802.7	802.7	802.7	0.0
L	16015	650	2299	1.2	805.3	805.3	805.3	0.0
PECATONICA RIVER								
A	482572	795	9148	2.5	782.5	782.5	782.5	0.0
B	483722	525	5796	3.9	782.6	782.6	782.6	0.0
C	485177	343	4986	4.5	783.8	783.8	783.8	0.0
D	486157	788	8663	2.6	784.4	784.4	784.4	0.0
E	488232	2373	27585	0.8	784.8	784.8	784.8	0.0
F	489872	2712	30471	0.7	784.8	784.8	784.8	0.0
G	492572	1560	18799	1.2	784.9	784.9	784.9	0.0
H	495052	1092	13050	1.7	785.0	785.0	785.0	0.0
I	497917	1244	13792	1.6	785.5	785.5	785.5	0.0
J	499347	1083	12439	1.8	785.6	785.6	785.6	0.0
K	500422	955	10449	2.2	785.7	785.7	785.7	0.0

[1] FEET ABOVE MOUTH

[2] ELEVATIONS COMPUTED WITHOUT CONSIDERING BACKWATER EFFECTS FROM THE SUGAR RIVER DECATUR RACEWAY

TABLE 5	FEDERAL EMERGENCY MANAGEMENT AGENCY **GREEN COUNTY, WI** (UNINCORPORATED AREAS)	**FLOODWAY DATA** **NORWEGIAN CREEK - PECATONICA RIVER**

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
PECATONICA RIVER (continued)								
L	502202	650	6296	3.6	786.0	786.0	786.0	0.0
M	504992	374	4968	4.5	787.2	787.2	787.2	0.0
N	506692	416	6856	3.3	788.1	788.1	788.1	0.0
O	508209	925	7886	2.9	788.7	788.7	788.7	0.0
P	510284	2029	26049	0.9	789.1	789.1	789.1	0.0
Q	511704	2036	28725	0.8	789.1	789.1	789.1	0.0
R	513484	2168	24819	0.9	789.2	789.2	789.2	0.0
S	515109	1462	20201	1.1	789.2	789.2	789.2	0.0
T	516134	2511	27988	0.8	789.3	789.3	789.3	0.0
U	518944	2770	32398	0.7	789.3	789.3	789.3	0.0
V	520874	2580	31087	0.7	789.3	789.3	789.3	0.0
W	524194	3460	42565	0.5	789.4	789.4	789.4	0.0
X	526424	2091	31511	0.7	789.4	789.4	789.4	0.0
Y	527754	2330	32180	0.7	789.5	789.5	789.5	0.0
Z	531743	2700	9367	2.3	789.6	789.6	789.6	0.0
AA	531982	2800	36155	0.6	789.7	789.7	789.7	0.0
AB	534317	1743	25621	0.6	789.7	789.7	789.7	0.0
AC	536207	1800	24000	0.9	789.8	789.8	789.8	0.0
AD	538397	2450	29893	0.7	789.9	789.9	789.9	0.0
AE	539798	2475	16304	1.3	789.9	789.9	789.9	0.0
AF	542238	2870	41902	0.5	790.0	790.0	790.0	0.0
AG	544908	4117	55939	0.4	790.0	790.0	790.0	0.0

[1] FEET ABOVE MOUTH

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOODWAY DATA

PECATONICA RIVER

38

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
RICHLAND CREEK								
A	112243	27	315	6.0	899.9	899.9	899.9	0.0
B	112800	146	1005	1.9	901.6	901.6	901.6	0.0
C	113450	387	2121	0.9	902.0	902.0	902.0	0.0
D	115378	46	286	6.6	904.3	904.3	904.3	0.0
E	115978	430	2086	0.9	905.5	905.5	905.5	0.0
F	117498	271	623	2.2	907.8	907.8	907.8	0.0
G	120258	305	519	2.7	914.6	914.6	914.6	0.0
H	122458	343	543	2.6	921.2	921.2	921.2	0.0
I	123758	293	608	2.3	926.4	926.4	926.4	0.0
J	124767	160	569	2.5	931.9	931.9	931.9	0.0
K	127047	157	460	3.0	939.7	939.7	939.7	0.0
L	128430	361	1047	0.8	948.8	948.8	948.8	0.0
M	130710	289	372	2.2	956.0	956.0	956.0	0.0
N	132270	134	427	1.9	963.1	963.1	963.1	0.0
O	133350	168	279	2.9	969.8	969.8	969.8	0.0
P	135590	227	370	2.2	981.5	981.5	981.5	0.0
Q	136750	14	58	13.8	991.4	991.4	991.4	0.0

[1] FEET ABOVE MOUTH

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

RICHLAND CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
SKINNER CREEK								
A	1160	674	2630	1.9	789.6	778.9[3]	778.9[3]	0.0
B	5412	136	1391	3.6	789.6	780.7[3]	780.7[3]	0.0
C	6142	130	1315	3.8	789.6	781.7[3]	781.7[3]	0.0
D	6384	220	1654	3.0	789.6	782.5[3]	782.5[3]	0.0
E	7624	955	7428	0.7	789.6	782.8[3]	782.8[3]	0.0
F	11264	900/0[2]	5930	0.8	789.6	783.0[3]	783.0[3]	0.0
G	19677	1364/0[2]	8343	0.6	789.6	786.3[3]	786.3[3]	0.0
H	21077	1175	7424	0.7	789.6	786.4[3]	786.4[3]	0.0
I	22553	144	1181	4.2	789.6	786.7[3]	786.7[3]	0.0
J	23998	1012	1121	3.6	789.6	787.2[3]	787.2[3]	0.0
K	26258	1615	7568	0.5	789.6	788.1[3]	788.1[3]	0.0
L	27308	1687	6885	0.6	789.6	788.2[3]	788.2[3]	0.0
M	29348	1280	4311	0.9	789.6	788.5[3]	788.5[3]	0.0

[1] FEET ABOVE MOUTH

[2] TOTAL WIDTH/WIDTH WITHIN UNINCORPORATED AREAS

[3] ELEVATIONS COMPUTED WITHOUT CONSIDERING BACKWATER EFFECTS FROM THE PECATONICA RIVER

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOODWAY DATA

SKINNER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
SUGAR RIVER								
A	106923	4700	8452	2.8	763.8	763.8	763.8	0.0
B	108183	4590	22206	1.1	765.4	765.4	765.4	0.0
C	109793	4690	23106	1.0	766.3	766.3	766.3	0.0
D	111403	3890	20922	1.1	766.7	766.7	766.7	0.0
E	113673	3980	18464	1.3	767.2	767.2	767.2	0.0
F	115543	4070	23928	0.9	767.8	767.8	767.8	0.0
G	116218	4230	18073	1.2	768.0	768.0	768.0	0.0
H	117738	4814	19268	1.2	768.7	768.7	768.7	0.0
I	121978	5150	31294	0.7	769.6	769.6	769.6	0.0
J	124778	4817	25985	0.9	770.0	770.0	770.0	0.0
K	127628	4344	18103	1.2	770.6	770.6	770.6	0.0
L	131428	3660	16115	1.4	771.8	771.8	771.8	0.0
M	133598	1810	10761	2.1	773.0	773.0	773.0	0.0
N	134798	676	4686	4.7	774.1	774.1	774.1	0.0
O	135836	369	3631	6.1	776.2	776.2	776.2	0.0
P	137416	1492	12474	1.8	778.2	778.2	778.2	0.0
Q	138766	1798	18596	1.1	778.7	778.7	778.7	0.0
R	140366	1987	14865	1.4	779.0	779.0	779.0	0.0
S	143016	2291	13042	1.6	780.1	780.1	780.1	0.0
T	145476	3214	24988	0.8	780.6	780.6	780.6	0.0
U	148015	1964	10188	2.1	781.2	781.2	781.2	0.0
V	149346	1620	12631	1.7	782.7	782.7	782.7	0.0
W	151206	2074	16485	1.3	783.3	783.3	783.3	0.0
X	152136	2764	19319	1.1	783.6	783.6	783.6	0.0
Y	153216	3205/2600[2]	21620	1.0	783.7	783.7	783.7	0.0

[1] FEET ABOVE MOUTH

[2] TOTAL WIDTH/WIDTH WITHIN UNINCORPORATED AREAS

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

SUGAR RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
SUGAR RIVER (continued)								
Z	155716	[2]3445/2600	21909	0.9	783.9	783.9	783.9	0.0
AA	156921	1860	5926	3.5	784.9	784.9	784.9	0.0
AB	159291	2870	18145	1.1	786.0	786.0	786.0	0.0
AC	160759	3560	20362	1.0	786.3	786.3	786.3	0.0
AD	162259	2783	24522	0.8	786.6	786.6	786.6	0.0
AE	164189	2324	13225	1.5	787.2	787.2	787.2	0.0
AF	165799	1504	9209	2.1	787.8	787.8	787.8	0.0
AG	167109	1033	7185	2.7	788.7	788.7	788.7	0.0
AH	168659	420	4926	4.0	789.5	789.5	789.5	0.0
AI	173222	1930	13198	1.5	792.5	792.5	792.5	0.0
AJ	175882	2201	12404	1.6	793.9	793.9	793.9	0.0
AK	178002	2672	19506	1.0	794.6	794.6	794.6	0.0
AL	180762	2101	15625	1.3	795.2	795.2	795.2	0.0
AM	185012	3093	21493	0.9	796.1	796.1	796.1	0.0
AN	188382	3342	17758	1.1	797.0	797.0	797.0	0.0
AO	189892	2776	13438	1.5	797.5	797.5	797.5	0.0
AP	190686	2780	17742	1.1	798.0	798.0	798.0	0.0
AQ	194496	2417	11755	1.7	799.3	799.3	799.3	0.0
AR	199396	921	4831	4.1	800.9	800.9	800.9	0.0
AS	206393	409	6109	3.3	808.3	808.3	808.3	0.0
AT	213493	2509	23170	0.8	808.5	808.5	808.5	0.0
AU	214207	2012	15723	1.1	808.9	808.9	808.9	0.0
AV	215992	2268	16935	1.0	810.2	810.2	810.2	0.0
AW	217192	2242	15006	1.2	810.6	810.6	810.6	0.0
AX	219032	2000	15879	1.1	811.1	811.1	811.1	0.0

[1] FEET ABOVE MOUTH

[2] TOTAL WIDTH/WIDTH WITHIN UNINCORPORATED AREAS

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

SUGAR RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
SUGAR RIVER (continued)								
AY	222352	2618	16087	0.9	811.7	811.7	811.7	0.0
AZ	223652	2306	13343	1.1	812.1	812.1	812.1	0.0
BA	225822	1789	12633	1.2	812.6	812.6	812.6	0.0
BB	227372	1472	10128	1.5	813.1	813.1	813.1	0.0
BC	229832	2373	12357	1.2	814.2	814.2	814.2	0.0
BD	232702	1920	10725	1.4	815.4	815.4	815.4	0.0
BE	235222	939	5703	2.6	817.1	817.1	817.1	0.0
BF	237272	1652	11358	1.3	818.6	818.6	818.6	0.0
BG	241172	2460	12921	1.2	819.7	819.7	819.7	0.0
BH	242892	2130	13194	1.1	820.4	820.4	820.4	0.0
BI	246022	1780	10750	1.4	821.6	821.6	821.6	0.0
BJ	248390	1630	12358	1.2	824.1	824.1	824.1	0.0
BK	249610	1448	10765	1.4	824.6	824.6	824.6	0.0
BL	252910	2373	12768	1.2	826.1	826.1	826.1	0.0
BM	257120	1310	8828	1.7	828.1	828.1	828.1	0.0
BN	258140	1440	9357	1.6	828.8	828.8	828.8	0.0
BO	260860	1568	12291	1.2	830.4	830.4	830.4	0.0
BP	262810	1066	8066	1.9	831.2	831.2	831.2	0.0
BQ	265610	2092	18103	0.8	832.0	832.0	832.0	0.0
BR	268540	966	8429	1.8	832.9	832.9	832.9	0.0
BS	270260	1468	13669	1.1	833.5	833.5	833.5	0.0
BT	272793	2226	17698	0.7	834.0	834.0	834.0	0.0
BU	274233	1879	11934	1.1	834.5	834.5	834.5	0.0
BV	277303	1446	11287	1.2	835.6	835.6	835.6	0.0
BW	279973	2270	16149	0.8	836.3	836.3	836.3	0.0

---

[1] FEET ABOVE MOUTH

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

SUGAR RIVER

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
SUGAR RIVER								
BX	283,483	1649	12,711	1.0	837.3	837.3	837.3	0.0
BY	286,583	2161	15,276	0.7	837.9	837.9	837.9	0.0
BZ	289,303	1510	7871	1.4	838.5	838.5	838.5	0.0
CA	292,003	1999	10,702	1.0	840.6	940.6	840.6	0.0
CB	293,883	1450	10,105	1.1	841.8	841.8	841.8	0.0
CC	296,423	1431	8171	1.3	843.6	843.6	843.6	0.0
CD	299,183	1542	9267	1.2	845.3	845.3	845.3	0.0
CE	300,113	1250	7766	1.4	846.1	846.1	846.1	0.0
CF	301,131	700	4624	2.4	847.0	847.0	847.0	0.0
CG	301,211	706	4325	2.5	847.4	847.4	847.4	0.0
CH	302,511	585	5097	1.8	849.1	849.1	849.1	0.0
CI	305,151	1330	11,684	0.8	849.9	849.9	849.9	0.0
CJ	306,771	1670	11,602	0.8	850.2	850.2	850.2	0.0
CK	308,481	1297	11,172	0.8	850.5	850.5	850.5	0.0
CL	310,171	1466	9144	1.0	851.2	851.2	851.2	0.0
CM	311,691	1750	8791	1.0	852.0	852.0	852.0	0.0
CN	313,161	1980	8850	0.9	852.6	852.6	852.6	0.0
CO	314,311	2025	10,078	0.8	853.0	853.0	853.0	0.0
CP	316,491	1050	6089	1.3	853.7	853.7	853.7	0.0
CQ	317,591	1200	5627	1.4	854.5	854.5	854.5	0.0

[1] FEET ABOVE MOUTH

REVISED: 9/18/86

TABLE 5	FEDERAL EMERGENCY MANAGEMENT AGENCY GREEN COUNTY, WI (UNINCORPORATED AREAS)	FLOODWAY DATA SUGAR RIVER

36

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
SUGAR RIVER DECATUR RACEWAY								
A	8991	73	411	1.5	786.5	786.5	786.5	0.0
B	10121	140	703	1.1	786.6	786.6	786.6	0.0
C	11094	112	662	1.2	786.6	786.6	786.6	0.0
D	13334	100	608	1.6	786.8	786.8	786.8	0.0
E	14964	483	1807	0.8	787.0	787.0	787.0	0.0
F	16310	119	294	5.1	791.6	791.6	791.6	0.0
G	17050	250	2415	0.6	792.4	792.4	792.4	0.0
H	18070	280	2774	0.5	792.4	792.4	792.4	0.0
I	19600	839	6347	0.2	792.4	792.4	792.4	0.0
WEST BRANCH LITTLE SUGAR RIVER								
A	185	123	712	6.2	825.8	825.8	825.8	0.0
B	928	245	1515	2.9	827.6	827.6	827.6	0.0
C	12128	210	1402	2.9	837.2	837.2	837.2	0.0
D	12650	330	1697	2.4	838.2	838.2	838.2	0.0
E	13900	977	6341	0.6	838.6	838.6	838.6	0.0
F	15680	1315	7355	0.6	838.7	838.7	838.7	0.0
G	17150	1470	6681	0.6	838.8	838.8	838.8	0.0
H	18850	1161	6057	0.7	841.9	841.9	841.9	0.0
I	20360	1413	3358	1.2	842.3	842.3	842.3	0.0
J	21635	1550	3495	1.2	843.2	843.2	843.2	0.0
K	23165	1045	2706	1.5	844.6	844.6	844.6	0.0

[1] FEET ABOVE MOUTH

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOODWAY DATA

SUGAR RIVER DECATUR RACEWAY
WEST BRANCH LITTLE SUGAR RIVER

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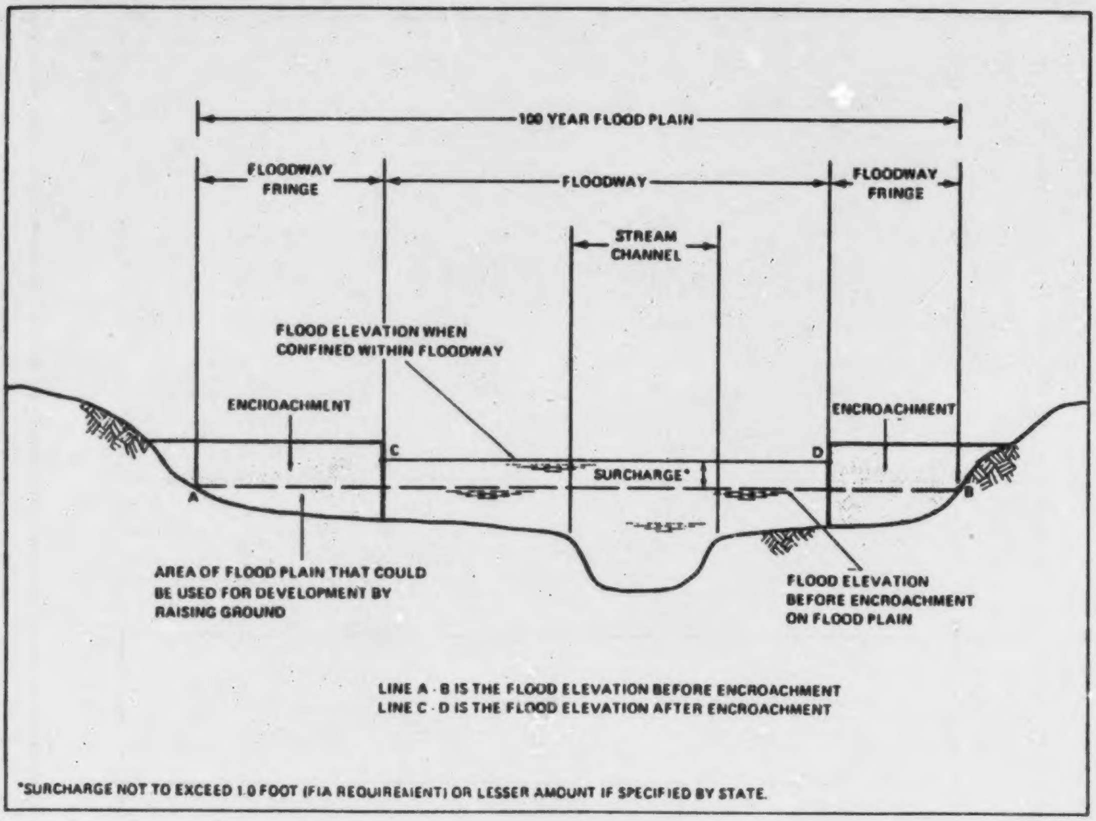
100 YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE*
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE A - B IS THE FLOOD ELEVATION BEFORE ENCROACHMENT
LINE C - D IS THE FLOOD ELEVATION AFTER ENCROACHMENT
*SURCHARGE NOT TO EXCEED 1.0 FOOT (FIA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

FIGURE 16

FLOODWAY SCHEMATIC

5.0 INSURANCE APPLICATION

In order to establish actuarial insurance rates, the FEMA has developed a process to transform the data from the engineering study into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors (FHFs), and flood insurance zone designations for each flooding source affecting the unincorporated areas of Green County.

5.1 Reach Determinations

Reaches are defined as lengths of watercourses having relatively the same flood hazard, based on the average weighted difference in water-surface elevations between the 10 and 100-year floods. This difference does not have a variation greater than that indicated in the following table for more than 20 per cent of the reach.

Average Difference Between 10 and 100-year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot
7.1 to 12 feet	2.0 feet
More than 12 feet	3.0 feet

The locations of the reaches determined for the unincorporated areas of Green County are shown on the Flood Profiles (Exhibit 1) and are summarized in the Flood Insurance Zone Data Table (Table 6).

5.2 Flood Hazard Factors

The FHF is used to correlate flood information with insurance rate tables. Correlations between property damage from floods and their FHFs are used to set actuarial insurance premium rate tables based on FHFs from 005 to 200.

The FHF for a reach is the average weighted difference between the 10 and 100-year flood water-surface elevations expressed to the nearest 0.5 foot, and shown as a three-digit code. For example, if the difference between water-surface elevations of the 10 and 100-year floods is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference between the 10 and 100-year water-surface elevations is greater than 10.0 feet, accuracy for the FHF is to the nearest foot.

5.3 Flood Insurance Zones

After the determination of reaches and their respective FHFs, the entire unincorporated areas of Green County were divided into zones, each having a specific flood potential or hazard. Each zone was assigned one of the following flood insurance zone designations:

Zone A:	Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations are shown or FHFs determined.

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (FEET NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
ALLEN CREEK							
Reach 1	0085	-2.1	-0.7	1.9	020	A4	Varies-See Map
BRAYTON CREEK							
Reach 1	0020,0040	-1.3	-0.3	0.6	015	A3	Varies-See Map
HONEY CREEK							
Reach 1	0110	-1.6	-0.5	0.9	015	A3	Varies-See Map

[1] FLOOD INSURANCE RATE MAP PANEL

[2] WEIGHTED AVERAGE

[3] ROUNDED TO NEAREST FOOT

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

ALLEN CREEK - BRAYTON CREEK - HONEY CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND 10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)	FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (FEET NGVD)
JUDA BRANCH							
Reach 1	0130,0135	-2.6	-0.6	1.2	025	A5	Varies-See Map
Reach 2	0130	-0.8	-0.3	0.5	010	A2	Varies-See Map
LEGLER SCHOOL BRANCH							
Reach 1	0010,0020	-1.1	-0.3	0.6	010	A2	Varies-See Map
LITTLE SUGAR RIVER							
Reach 1	0080,0085	-1.9	-0.6	1.6	020	A4	Varies-See Map

[1] FLOOD INSURANCE RATE MAP PANEL [2] WEIGHTED AVERAGE [3] ROUNDED TO NEAREST FOOT

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

JUDA BRANCH - LEGLER SCHOOL BRANCH - LITTLE SUGAR RIVER

FLOODING SOURCE	PANEL [1]	ELEVATION DIFFERENCE [2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION [3] (FEET NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
NORWEGIAN CREEK							
Reach 1	0095	-2.3	-0.7	1.7	025	A5	Varies-See Map
PECATONICA RIVER							
Reach 1	0105,0115	-5.5	-1.9	3.2	055	A11	Varies-See Map
RICHLAND CREEK							
Reach 1	0090,0130	-1.8	-0.6	1.0	020	A4	Varies-See Map

[1] FLOOD INSURANCE RATE MAP PANEL [2] WEIGHTED AVERAGE [3] ROUNDED TO NEAREST FOOT

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

NORWEGIAN CREEK - PECATONICA RIVER - RICHLAND CREEK

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (FEET NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
SKINNER CREEK Backwater from Pecatonica River	0105	-5.5	-1.9	3.2	055	A11	Varies-See Map
SUGAR RIVER							
Reach 1	0085,0095 0135	-3.2	-1.0	2.5	030	A6	Varies-See Map
Reach 2	0030,0040 0045,0085	-3.0	-0.9	2.2	030	A6	Varies-See Map

[1] FLOOD INSURANCE RATE MAP PANEL [2] WEIGHTED AVERAGE [3] ROUNDED TO NEAREST FOOT

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

SKINNER CREEK - SUGAR RIVER

REVISED: 9/18/86

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (FEET NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
SUGAR RIVER DECATUR RACEWAY							
Reach 1	0095	-0.3	-0.1	0.6	005	A1	Varies-See Map
Reach 2	0095	-3.5	-0.3	0.6	035	A7	Varies-See Map
WEST BRANCH LITTLE SUGAR RIVER							
Reach 1	0080	-2.4	-0.9	1.6	025	A5	Varies-See Map
[4]Reach 2	0040	-2.6	-0.6	1.4	025	A5	VARIES—SEE MAP
Reach 3	0040, 0020	-2.9	-0.8	2.3	030	A6	Varies-See Map

[1] FLOOD INSURANCE RATE MAP PANEL [2] WEIGHTED AVERAGE [3] ROUNDED TO NEAREST FOOT

[4] DATA FOR THIS REACH TAKEN FROM MONTICELLO, WISCONSIN FLOOD INSURANCE STUDY

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOOD INSURANCE ZONE DATA

SUGAR RIVER DECATUR RACEWAY
WEST BRANCH LITTLE SUGAR RIVER

Zones A1, A2, A3, A4, A5, A6, A7 and A11:	Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations are shown, and zones subdivided according to FHF.
Zone B:	Areas between the Special Flood Hazard Area and the limits of the 500-year flood, including areas of the 500-year flood plain that are protected from the 100-year flood by dike, levee, or other water control structures; or areas subject to certain types of 100-year flooding from sources with drainage areas less than one square mile. Zone B is not subdivided.
Zone C:	Areas of minimal flooding.

Table 6, "Flooding Insurance Zone Data", summarizes the flood evaluation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the unincorporated areas of Green County is, for insurance purposes, the principal result of the Flood Insurance Study. This map (published separately) contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by FEMA.

6.0 OTHER STUDIES

Flood insurance studies for the communities of Albany, Belleville, Monroe, Monticello, New Glarus and Rock County (References 8, 9, 15, 16, 17 and 18) are in complete agreement with this study. It also agrees with the Winslow, Illinois Flood Insurance Study (Reference 19). The Winslow study was not in agreement with a study completed for Stephenson County, Illinois (Reference 20). It was, however, considered to be more accurate than the County study and to more closely define current hydrologic conditions.

Flood insurance studies were completed for the Pecatonica River in Lafayette County (Reference 12) and for the Sugar River in Dane County (Reference 13). There exists discrepancies in areas of direct comparison between the Green County study and these earlier reports. These discrepancies are due to the method used in the adjoining studies to estimate starting water-surface elevations. The backwater analysis performed for this study should be considered more representative of potential future flooding conditions in the comparable areas. This flood insurance study should be considered authoritative for the purpose of the National Flood Insurance Program.

A Flood Hazard Boundary Map has been published by the Federal Insurance Administration (Reference 14). The difference between the Flood Hazard Boundary Map and this study are justified due to the more detailed nature of this flood insurance study.

7.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 300 South Wacker Drive (24th Floor), Chicago, Illinois 60606.

8.0 BIBLIOGRAPHY AND REFERENCES

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2. Technical Paper 40, Rainfall Frequency Atlas of the United States, U.S. Department of Commerce, January 1963.

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5. Estimating Magnitude and Frequency of Floods in Wisconsin, Duane H. Conger, 1971.

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9. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Rock County, Wisconsin, March 1978.

10. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Computer Program 723-X6-L202A HEC-2 Water Surface Profiles, Davis, California, November 1976 with updates.

11. Wisconsin Department of Natural Resources, Wisconsin Flood Plain Management Program, Chapter NR 116, Register No. 259, 1977.

12. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Lafayette County, Wisconsin, March 1978.

13. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Dane County, Wisconsin, March 1978.

14. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Green County, Wisconsin (unincorporated areas), May 27, 1977.

15. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Village of Albany, Wisconsin, in progress.

16. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Village of Belleville, Wisconsin, May 1980.

17. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, City of Monroe, Wisconsin, in progress.

18. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Village of Monticello, Wisconsin, in progress.

19. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Village of New Glarus, Wisconsin, in progress.

20. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Unincorporated Areas of Stephenson County, Illinois, April 1977.

9.0 REVISIONS DESCRIPTION (Revised September 18, 1986)

9.1 Purpose

The purpose of this Flood Insurance Study Revisions Description is to incorporate new and revised data into this currently effective Flood Insurance Study for the Unincorporated Areas of Green County, Wisconsin. This Revisions Description is intended to provide updated information that aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

9.2 Acknowledgments

The hydrologic and hydraulic analyses for this Revisions Description were obtained from the Wisconsin Department of Natural Resources. The Federal Emergency Management Agency (FEMA) reviewed and accepted these data for purposes of this revision.

9.3 Scope

This revision was based on new hydrologic and hydraulic analyses for the Sugar River. The analyses were performed using lower discharge rates that better represented the actual flood conditions. As a result, the profile for the Sugar River has decreased between the confluence of Story Creek and the county boundary. Floodway and floodplain delineations for the Sugar River were also revised using the adjusted profile and current topographic data.

9.4 Hydrologic and Hydraulic Analyses

Discharge rates used in the hydrologic analysis for the Sugar River were determined by comparing the drainage basin with other gaged basins of similar size and topography, and applying the U.S. Geological Survey regression equations (Reference 1) for the area. The peak discharge rates for the Sugar River are shown in Table 7, Revised Summary of Discharges.

The hydraulic analysis for the Sugar River was performed using the U.S. Army Corps of Engineers HEC-2 step-backwater computer model (Reference 2). The roughness coefficients and cross-section data from the previous analysis have remained the same. However, the change in discharge rate resulted in a decrease in profile elevations. The calculated 10-, 50-, 100-, and 500-year flood elevations are shown in Flood Profiles 37P and 38P.

TABLE 7 - REVISED SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
SUGAR RIVER					
upstream of Section CH	176	4,230	7,290	9,000	13,600
downstream of Dane/ Green county boundary	173	3,880	6,510	8,000	11,890

9.5 Floodways

Floodway computations for the Sugar River were revised as a result of new hydrologic and hydraulic analyses using lower discharge rates. The floodways were computed on the basis of equal conveyance reduction from each side of the floodplain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was revised and are presented in Table 5, Floodway Data.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point.

9.6 Other Studies

This Flood Insurance Study is in agreement with the Flood Insurance Study for the Unincorporated Areas of Dane County (Reference 3).

9.7 Location of Data

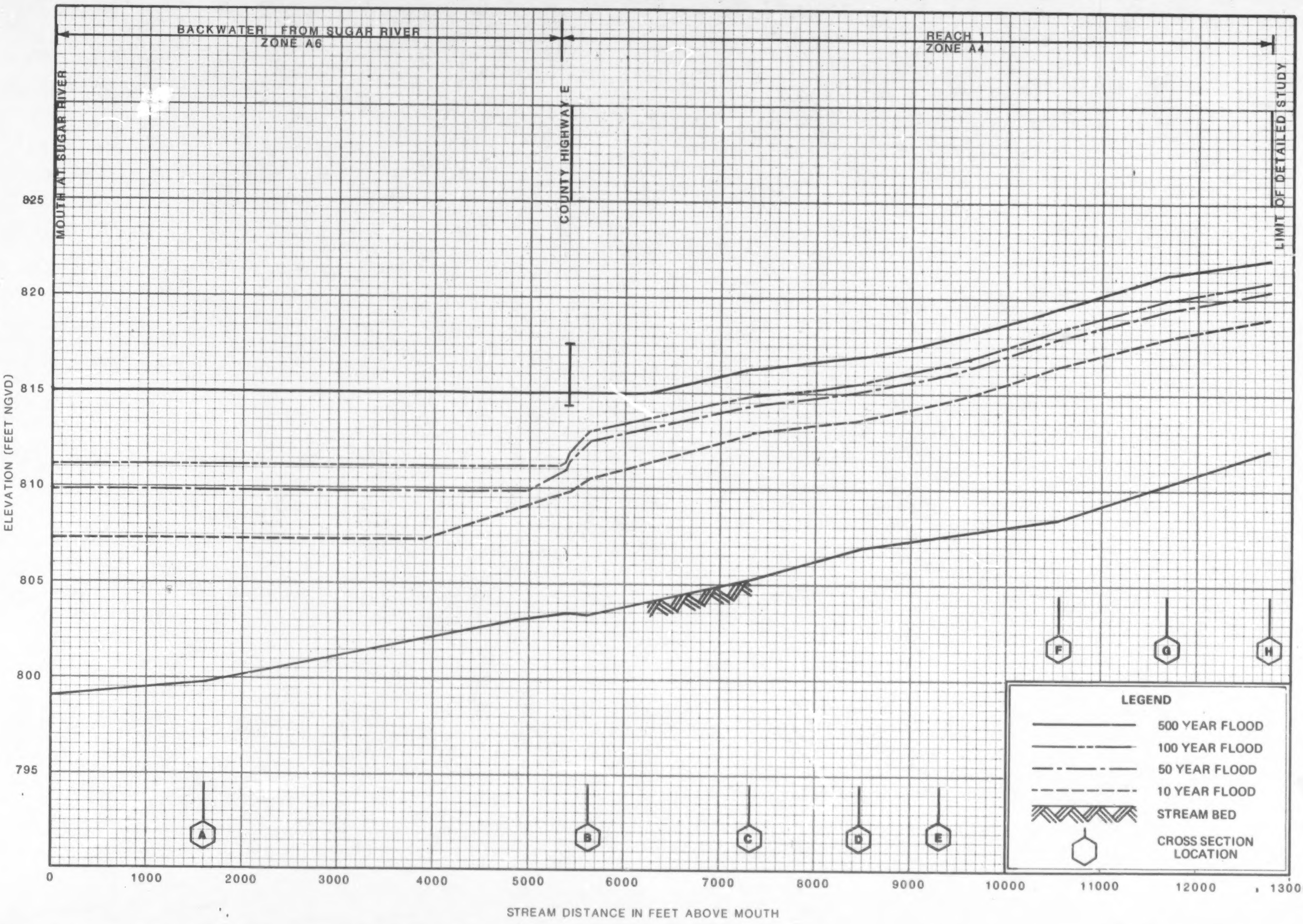
Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 300 South Wacker Drive, Chicago, Illinois 60606.

9.8 Bibliography and References

1. U.S. Geological Survey, Open-File Report, Estimating Magnitude and Frequency of Floods in Wisconsin, D.H. Conger, 1981.

2. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles Generalized Computer Program, Davis, California, updated March 1982.

3. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Dane County, Unincorporated Areas, Wisconsin, March 1978.



FLOOD PROFILES

ALLEN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

01P

51

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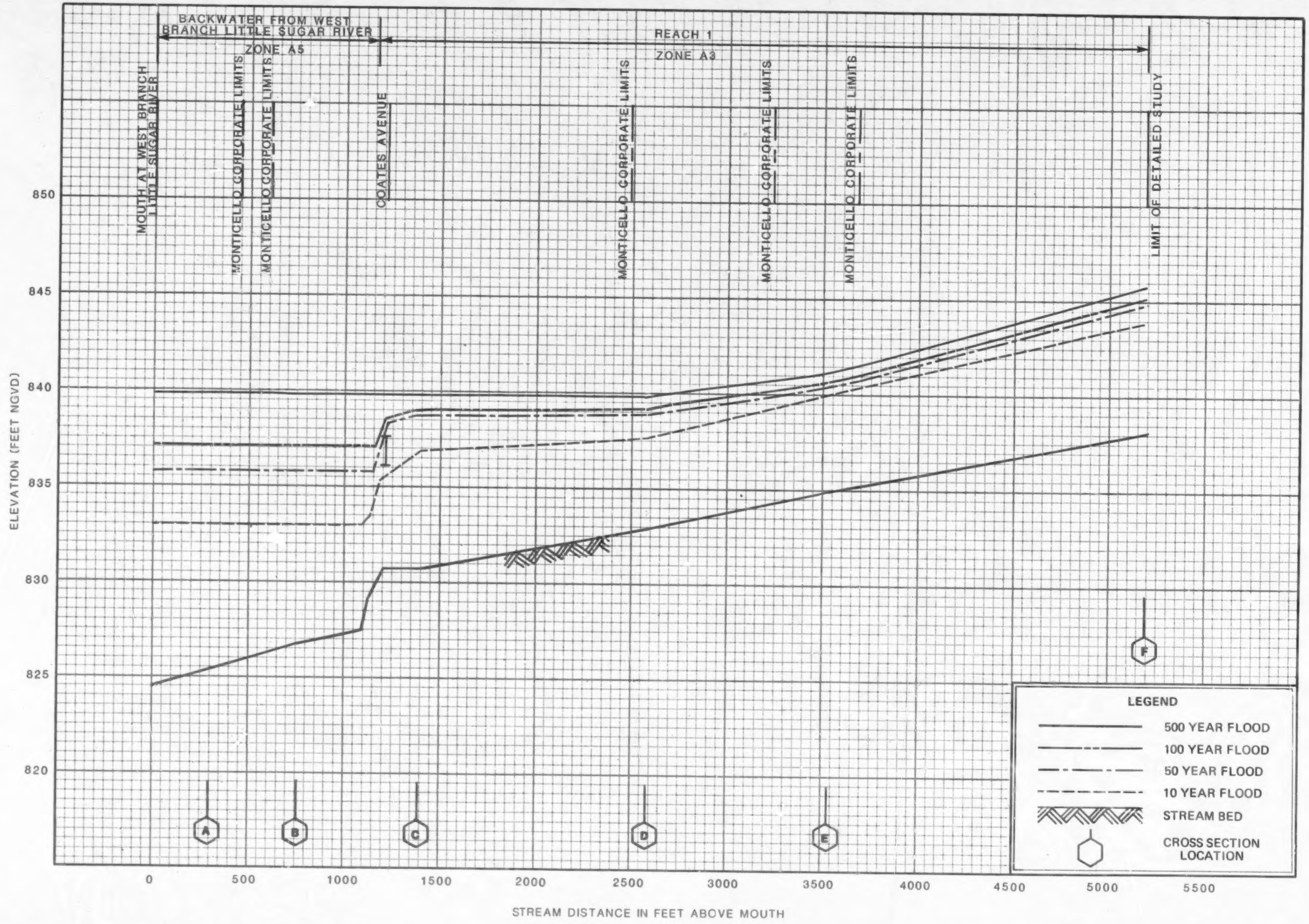

FLOOD PROFILES

BRAYTON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

02P

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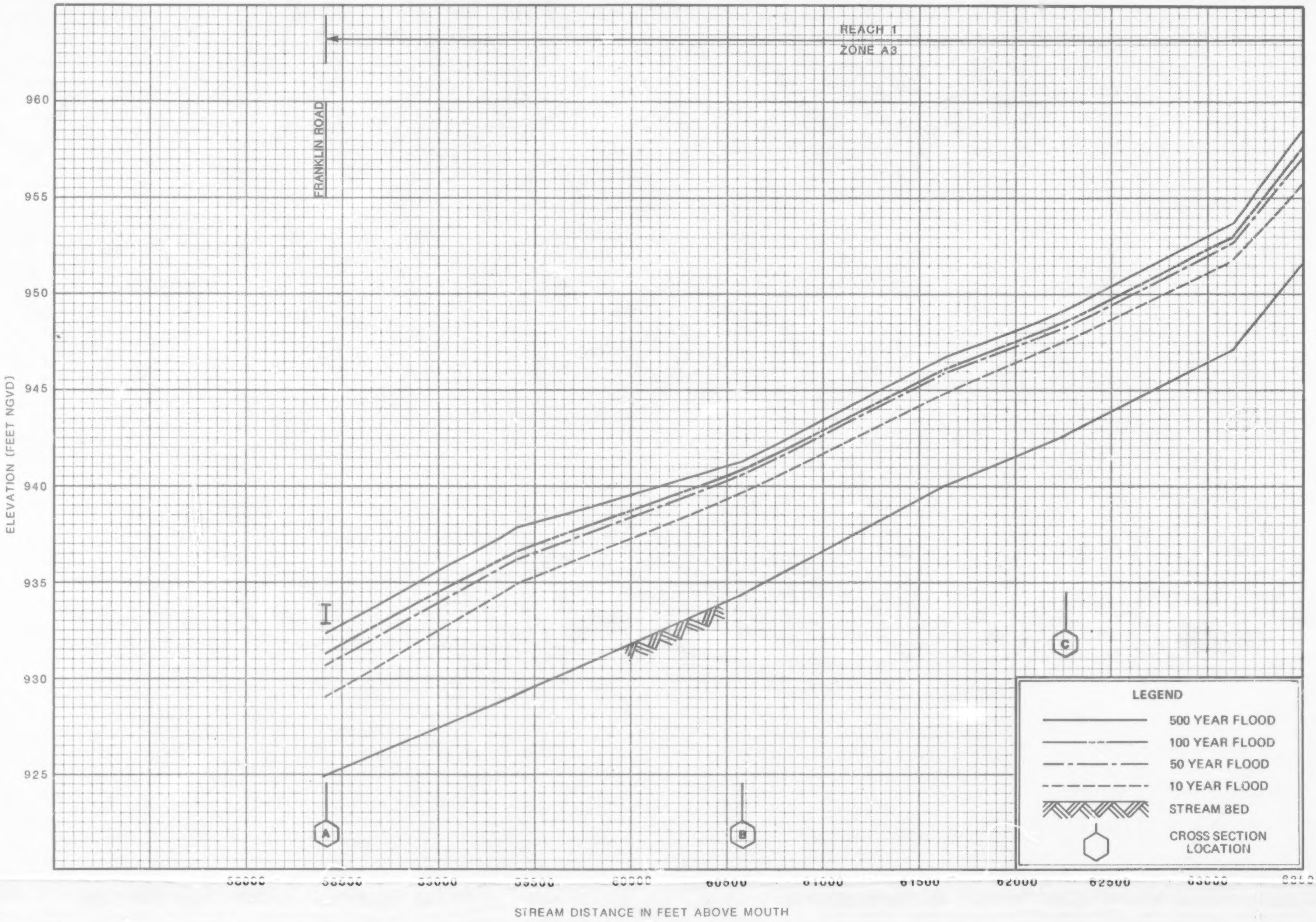


FLOOD PROFILES

HONEY CREEK

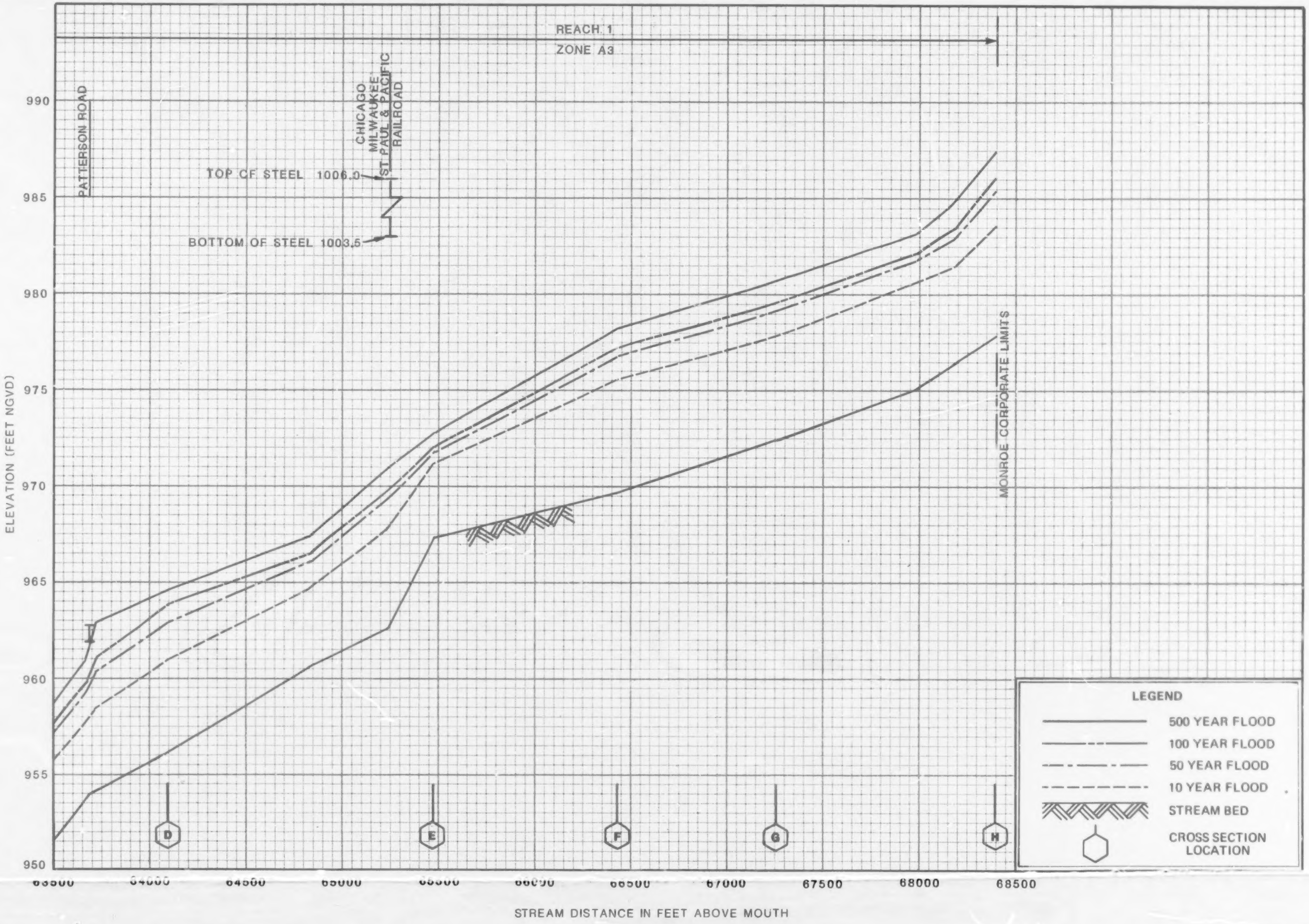
FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

03P

53



FLOOD PROFILES

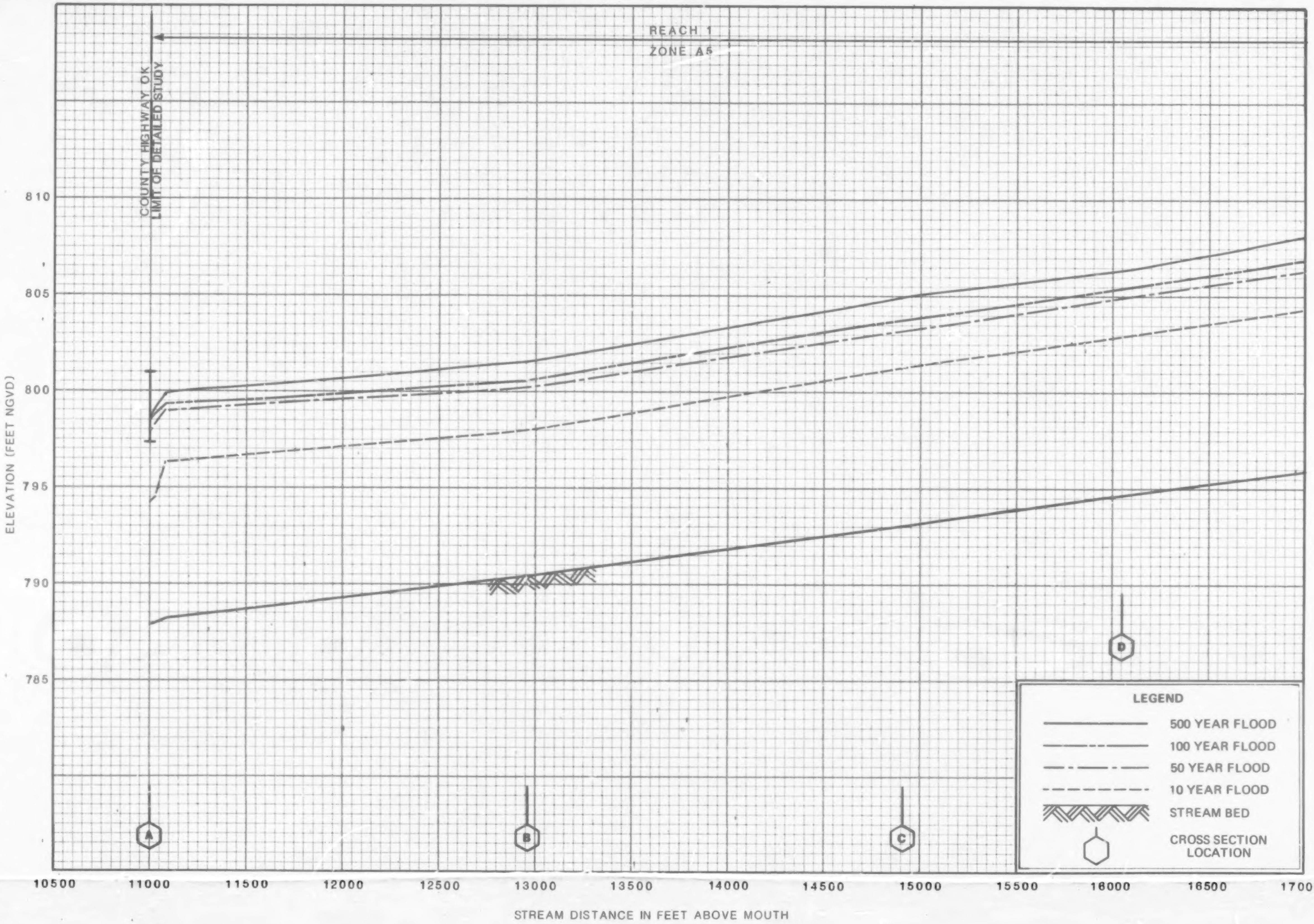
HONEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

04P



FLOOD PROFILES

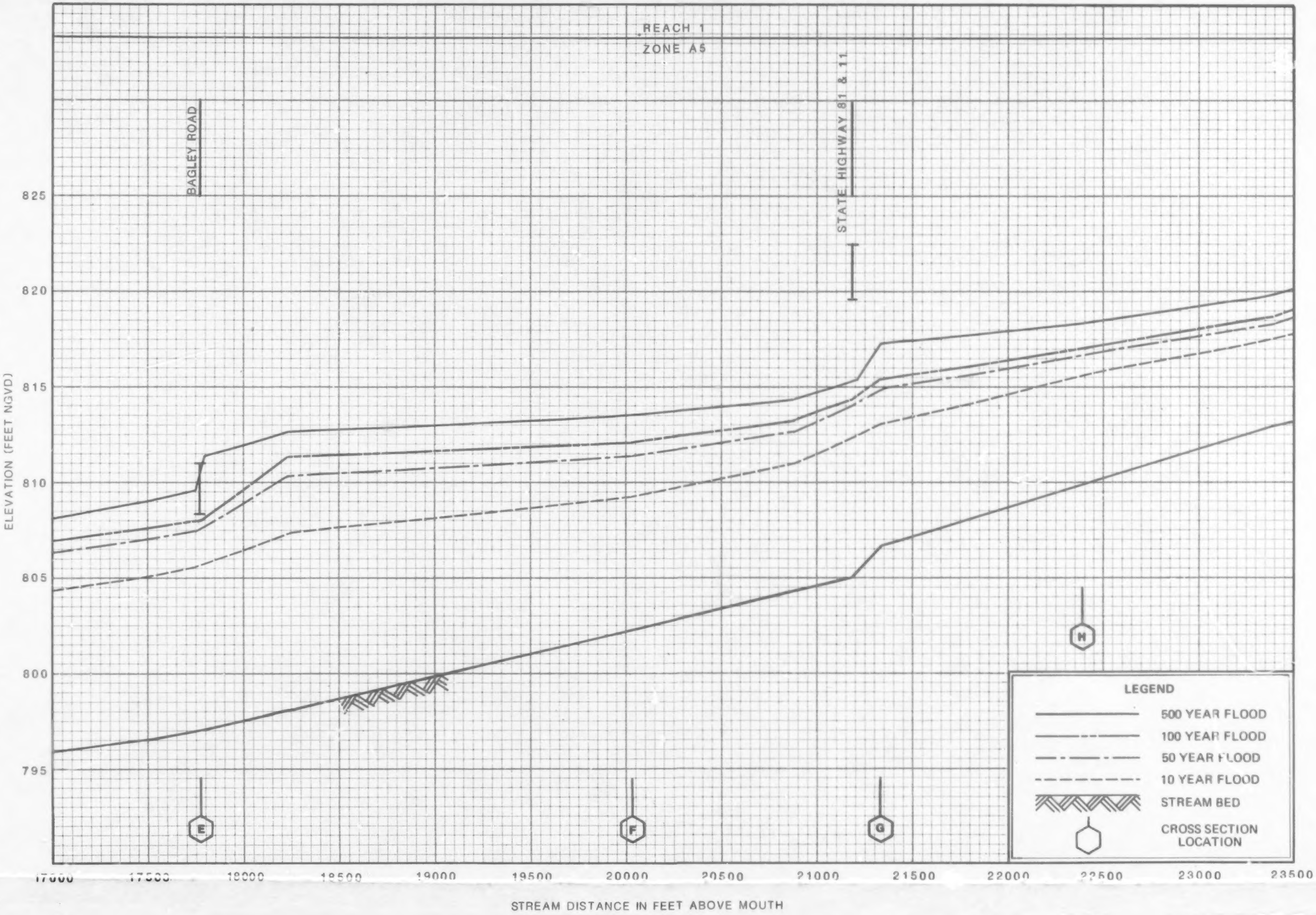
JUDA BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

05P



FLOOD PROFILES

JUDA BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

06P

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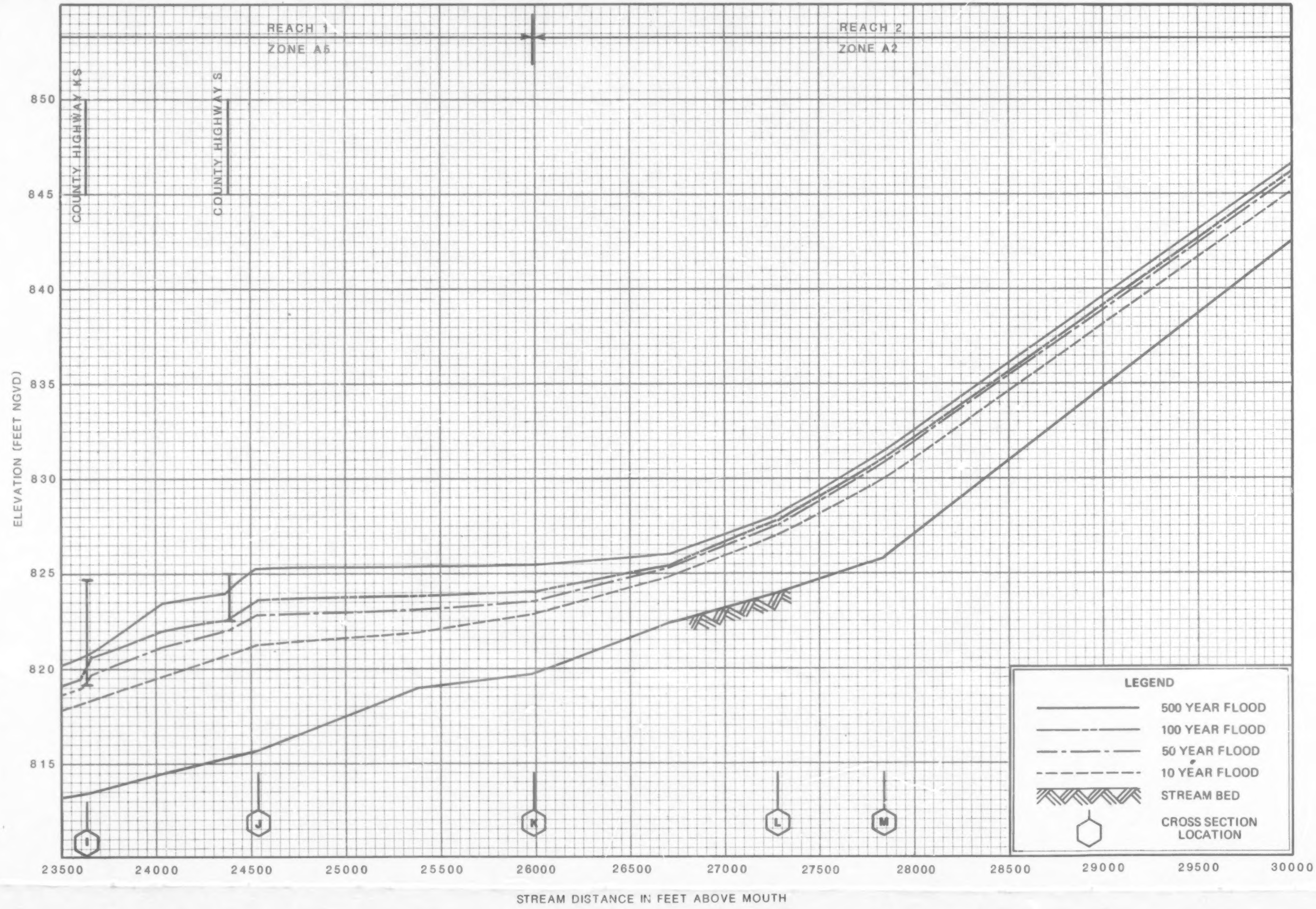

FLOOD PROFILES

JUDA BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

07P

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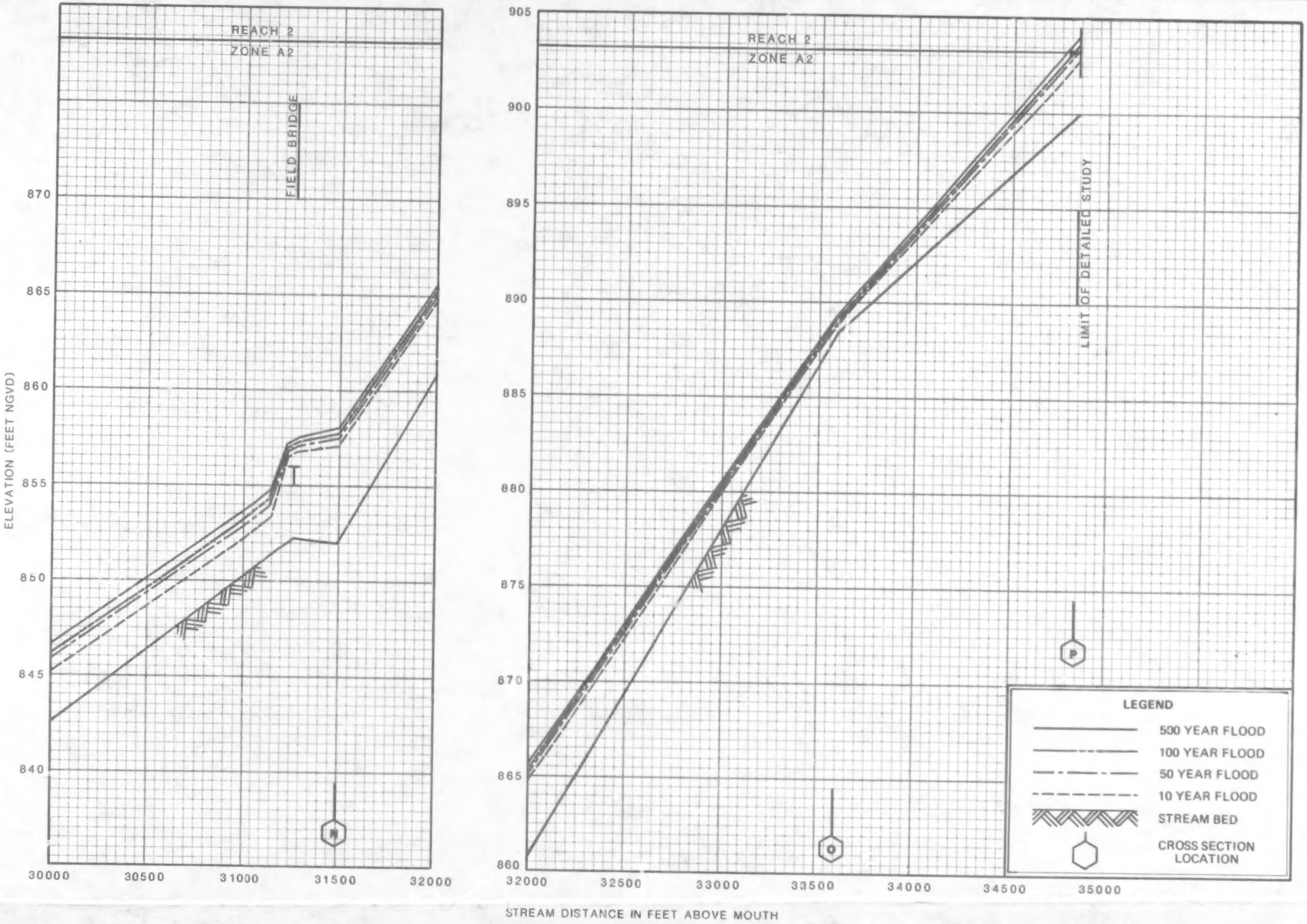

FLOOD PROFILES

JUDA BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

08P

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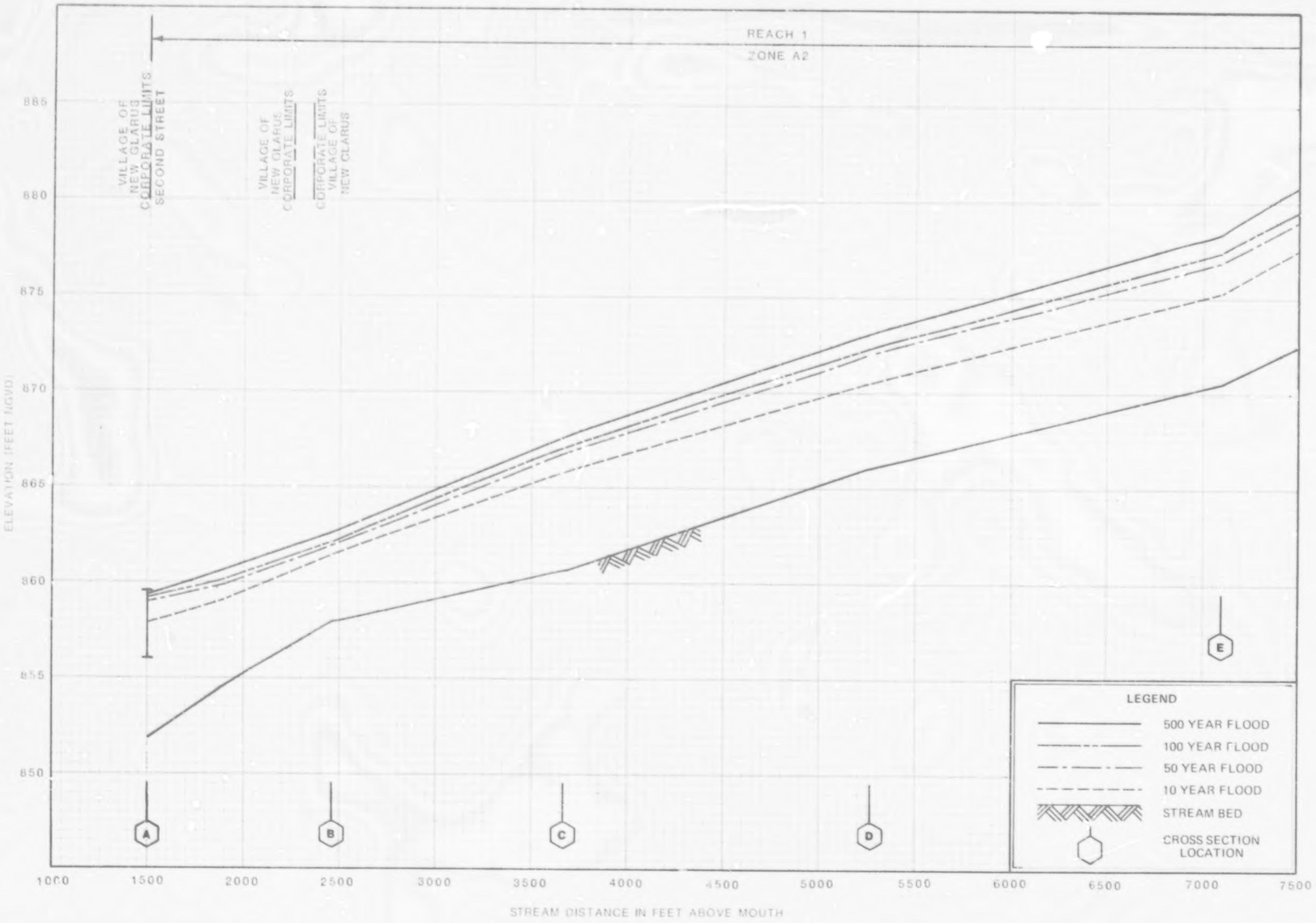

FLOOD PROFILES

LEGLER SCHOOL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

09P

59

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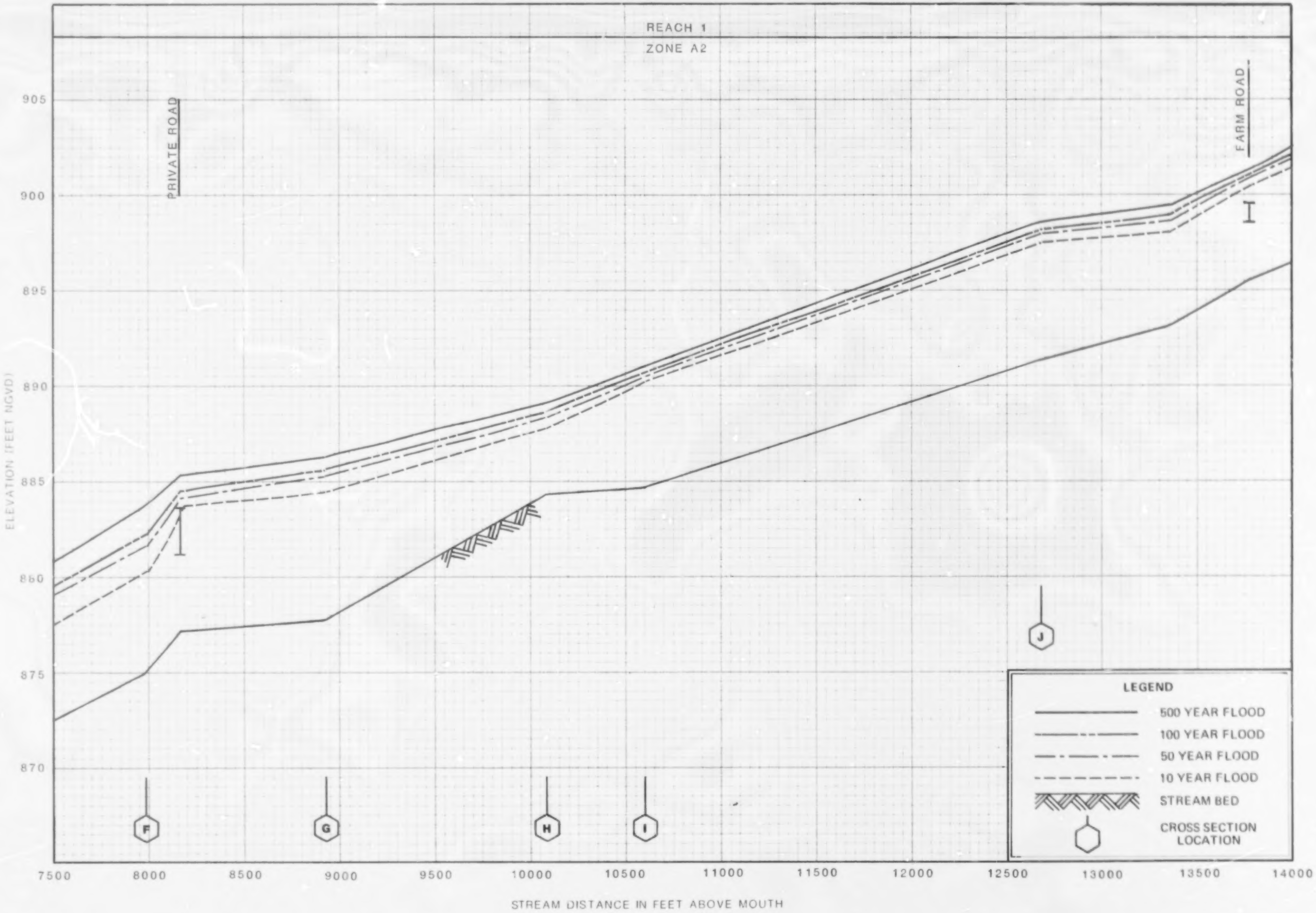


FEDERAL EMERGENCY MANAGEMENT AGENCY

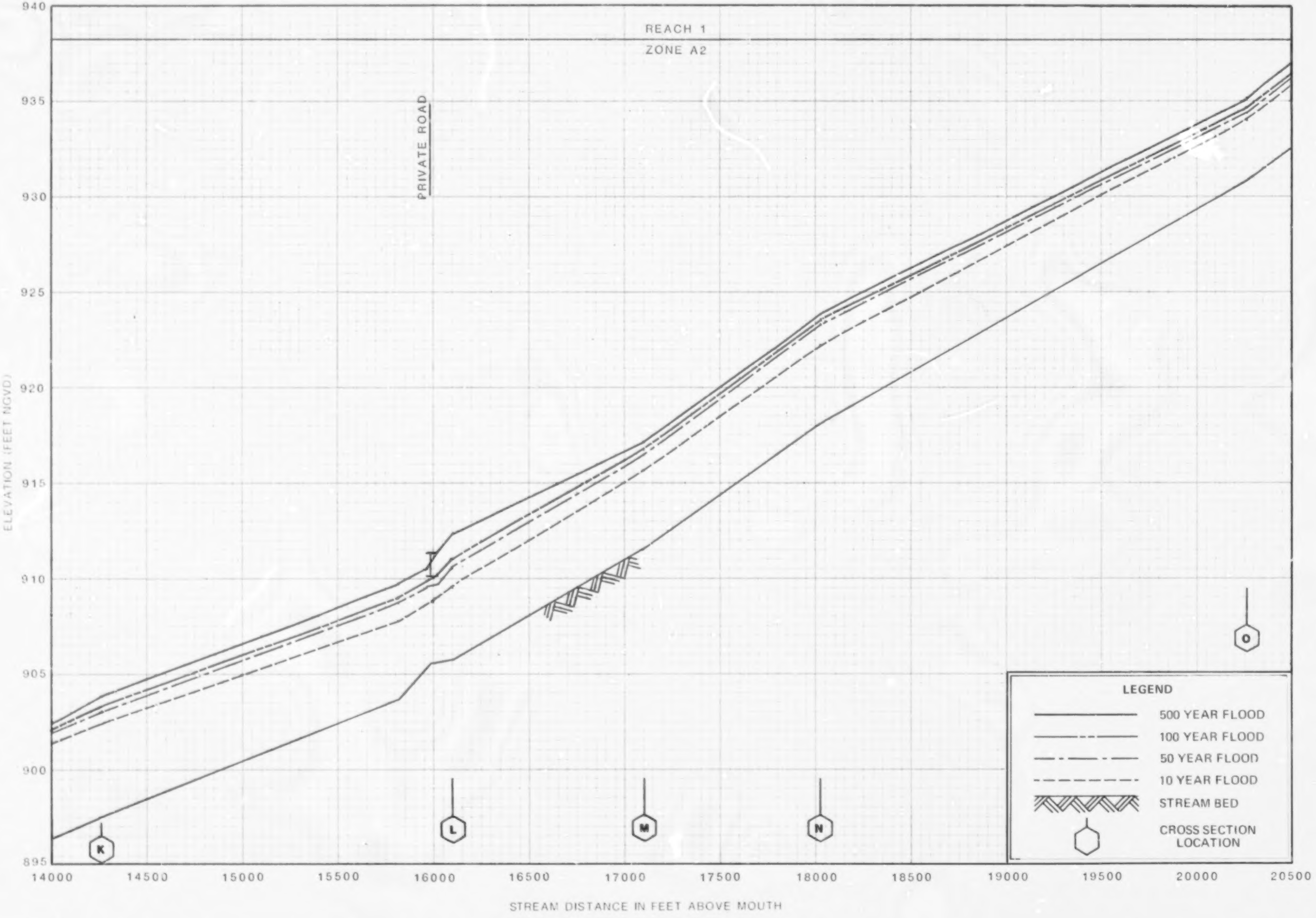
GREEN COUNTY, WI

(UNINCORPORATED AREAS)

FLOOD PROFILES

LEGLER SCHOOL BRANCH

10P



FLOOD PROFILES

LEGLER SCHOOL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

11P

61

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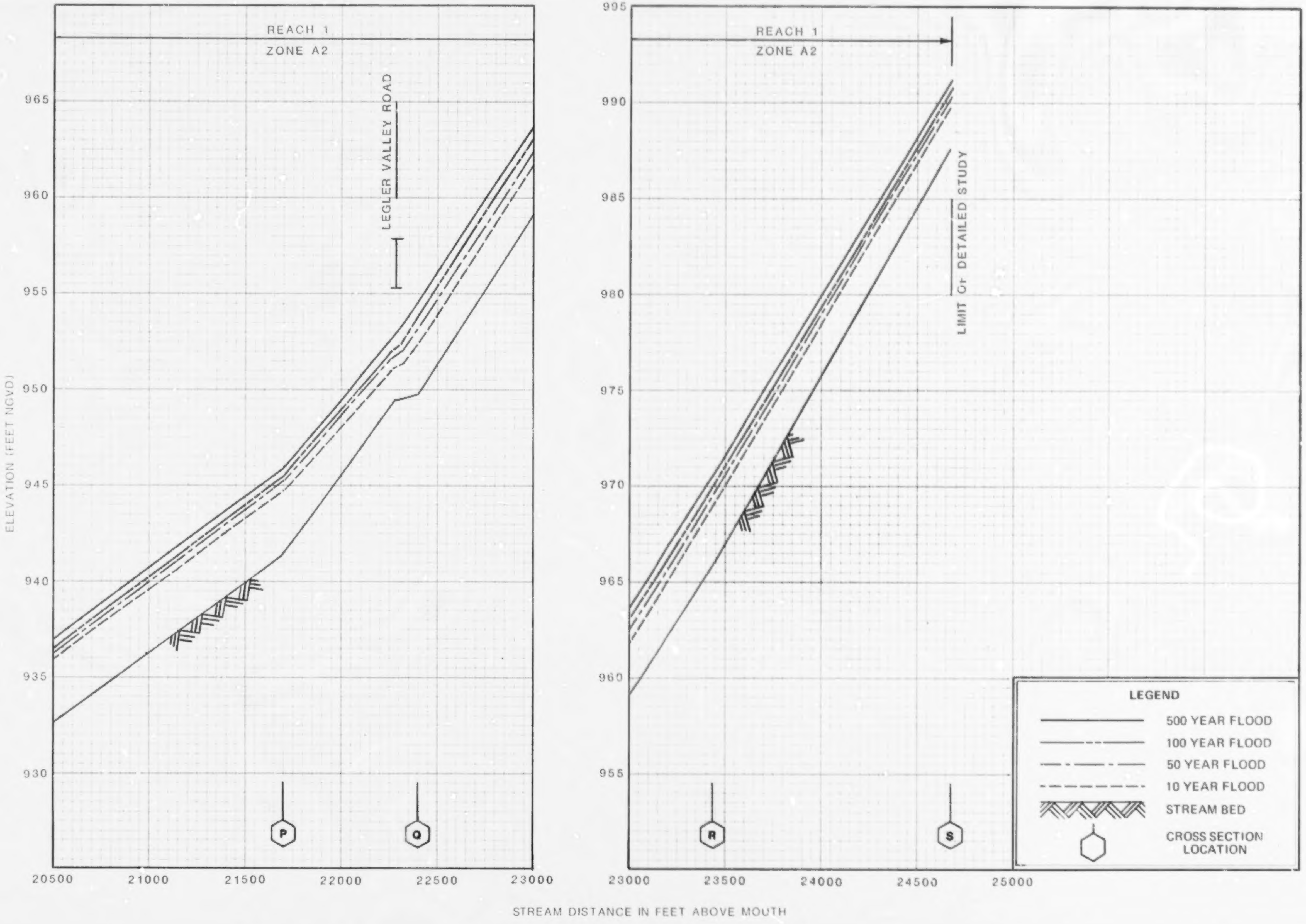


FLOOD PROFILES

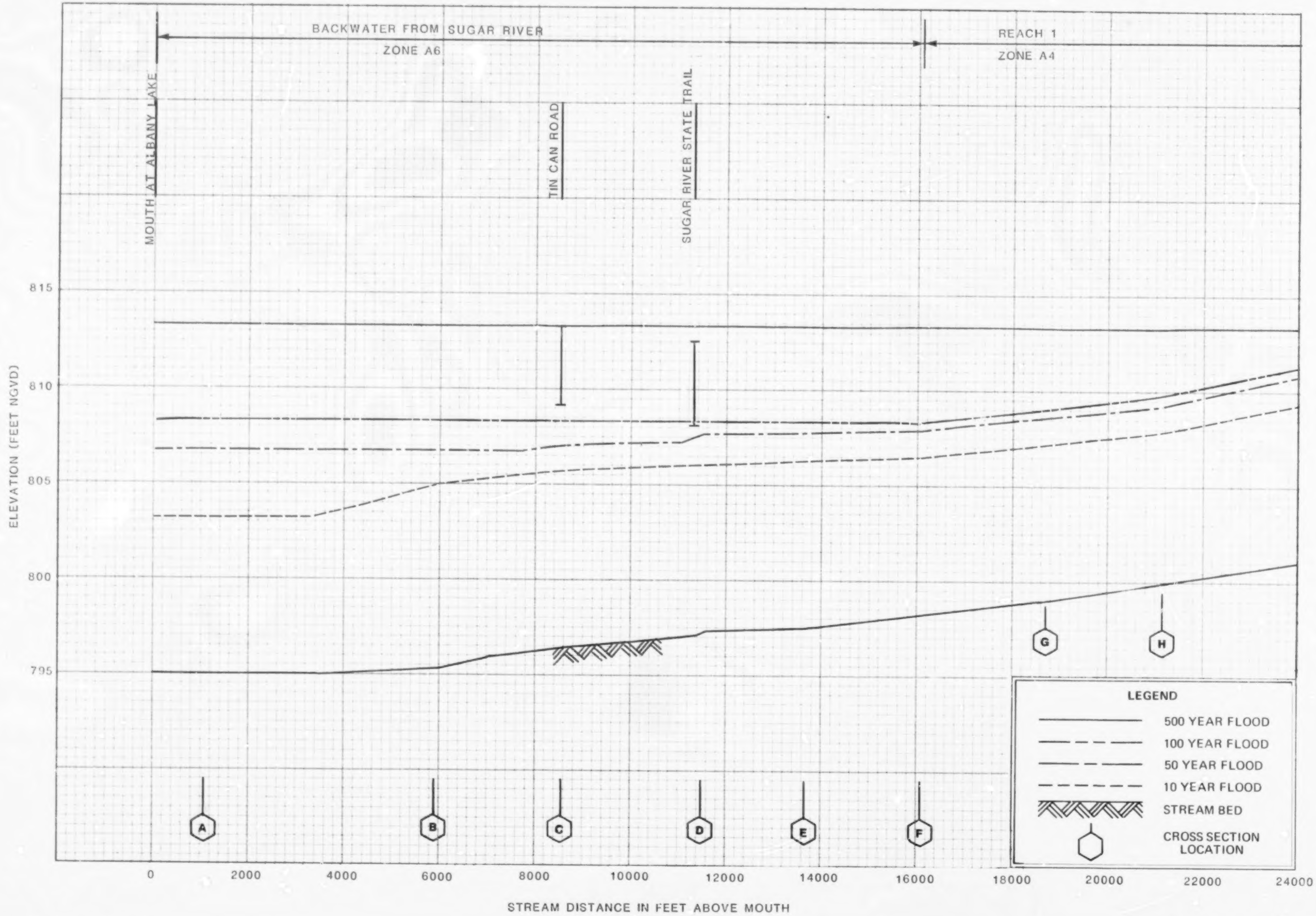
LEGLER SCHOOL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

12P



FLOOD PROFILES

LITTLE SUGAR RIVER

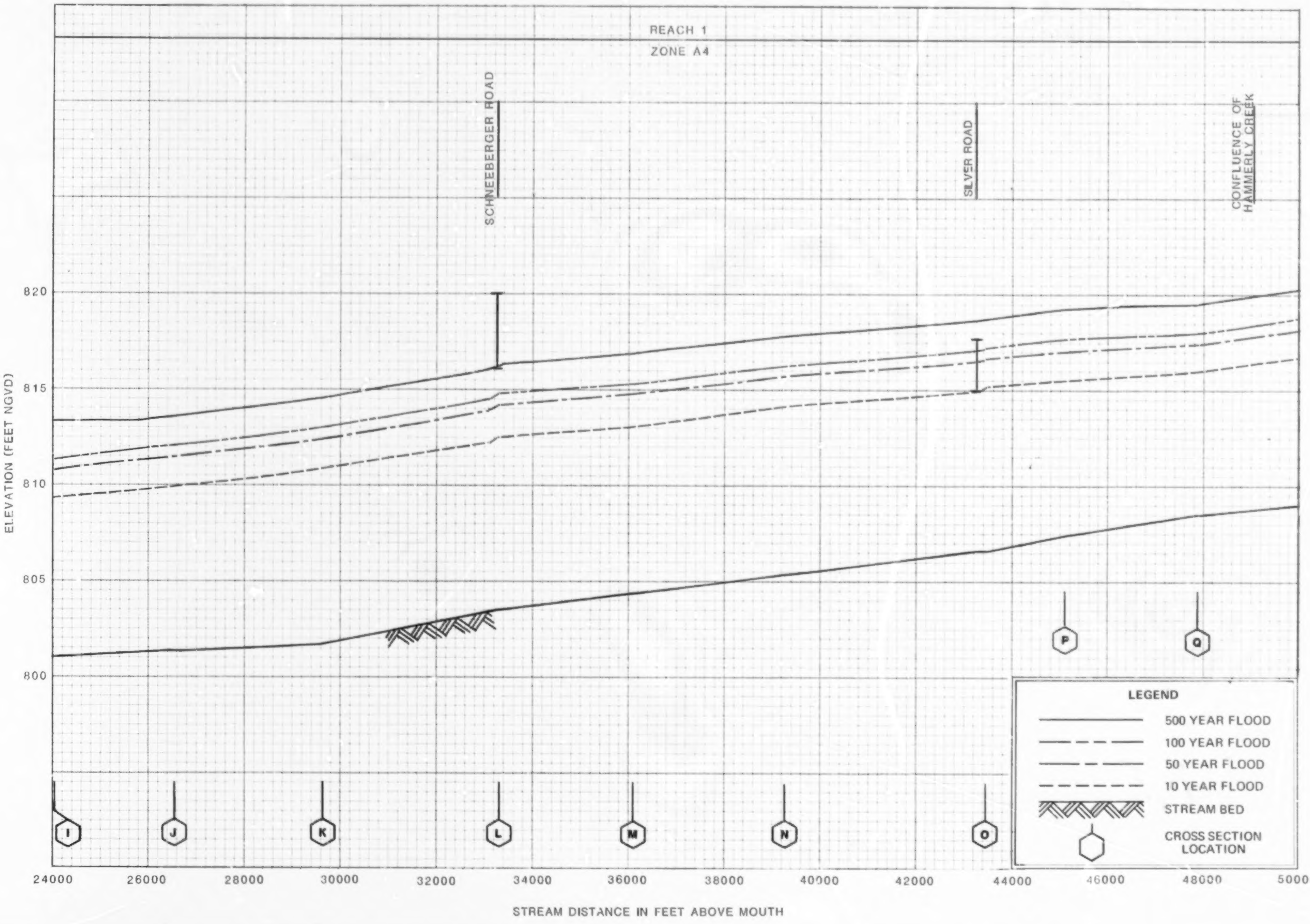
FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

13P

63



FLOOD PROFILES

LITTLE SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

14P

64

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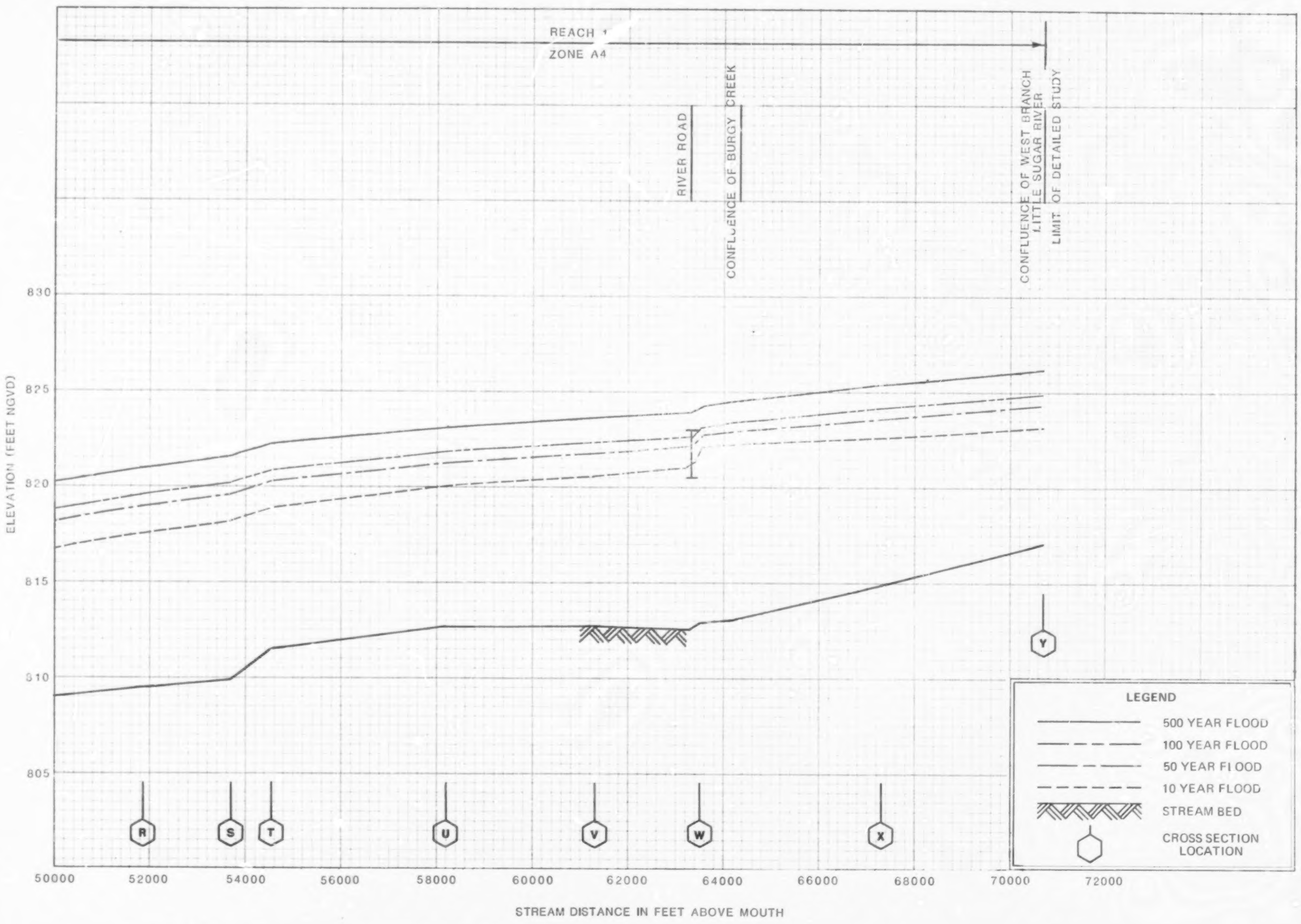

FLOOD PROFILES

LITTLE SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

15P

65

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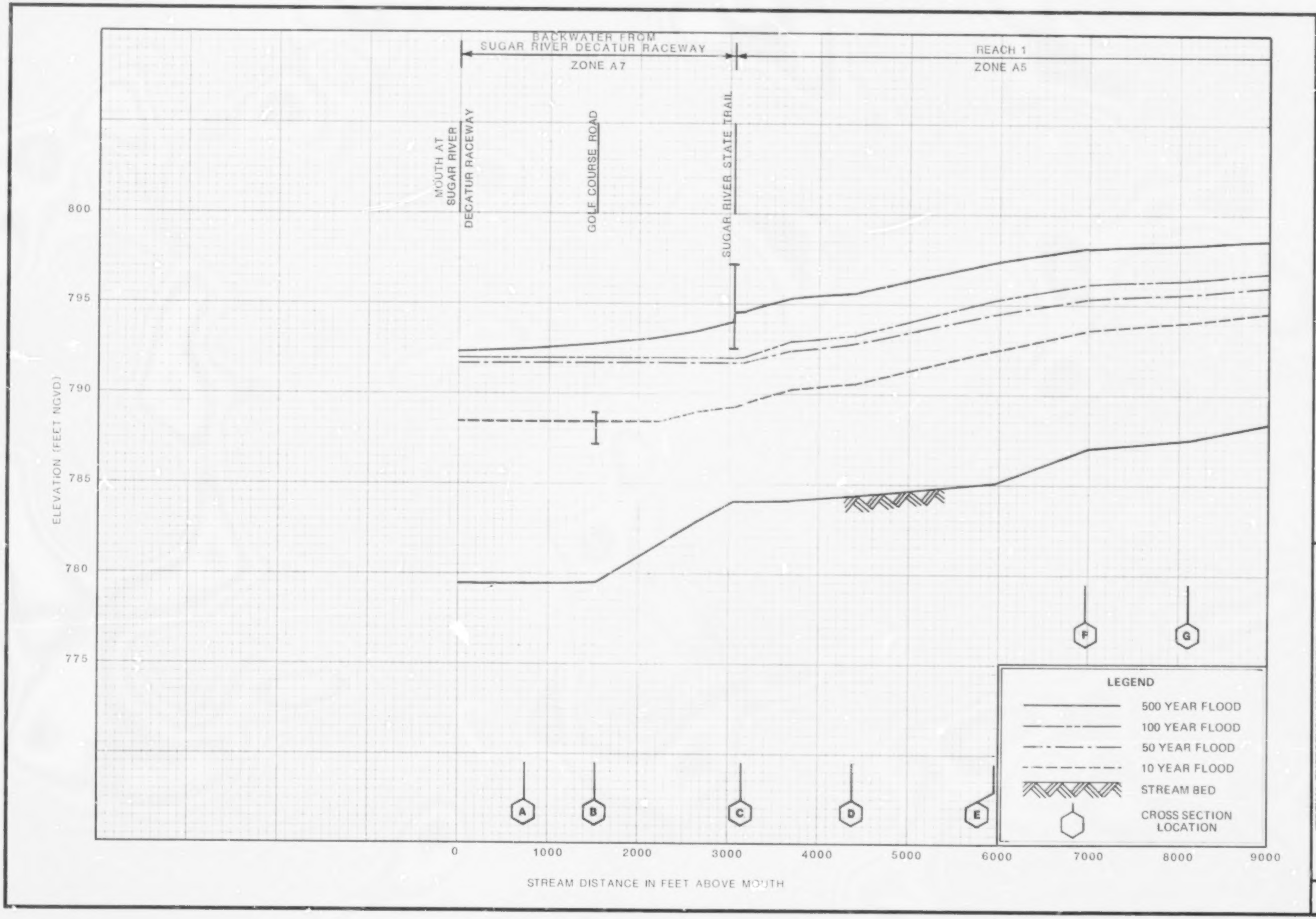

FLOOD PROFILES

NORWEGIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

46

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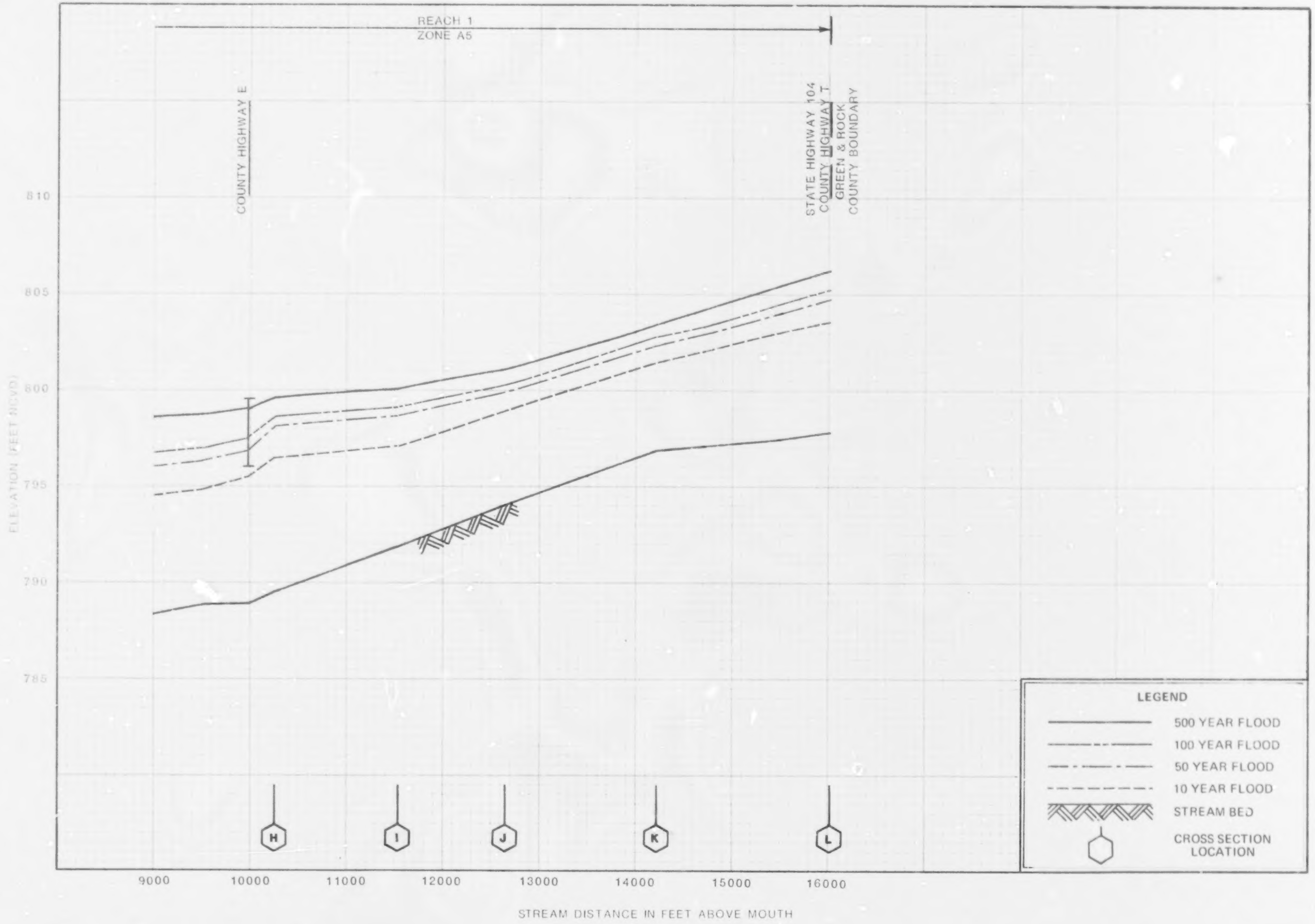


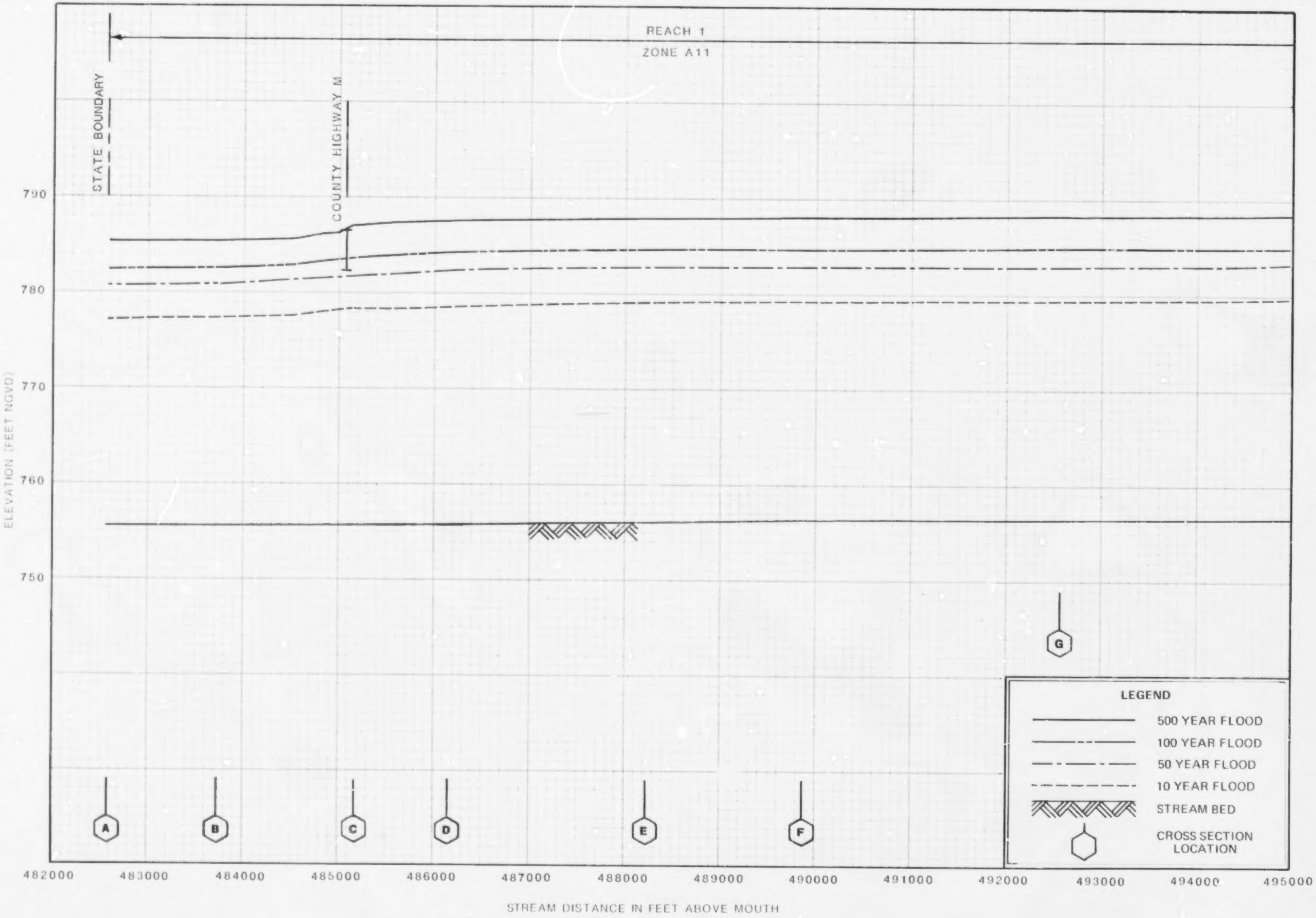
FLOOD PROFILES

NORWEGIAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

17P



FLOOD PROFILES

PECATONICA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

18P

68

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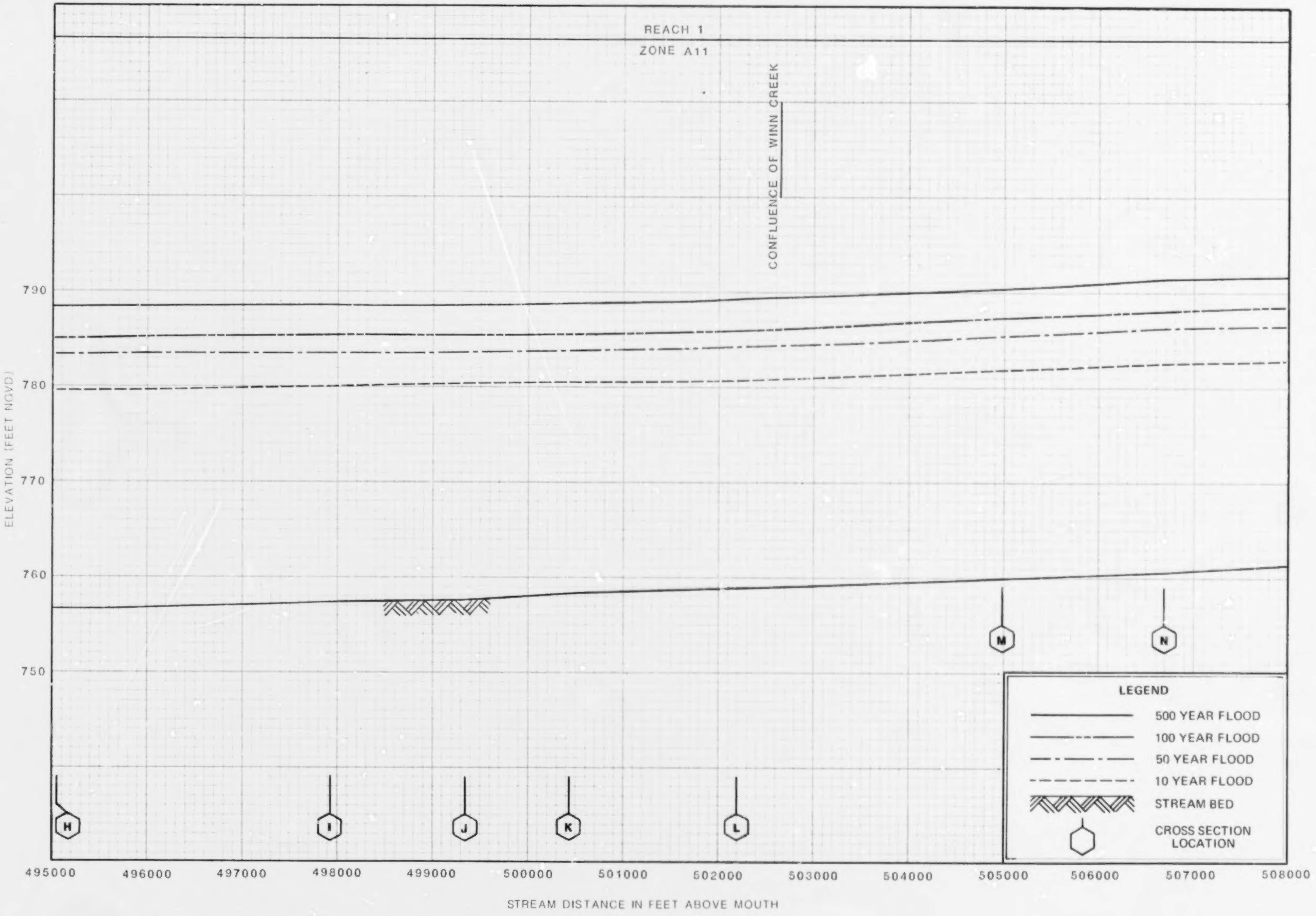

FLOOD PROFILES

PECATONICA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

19P

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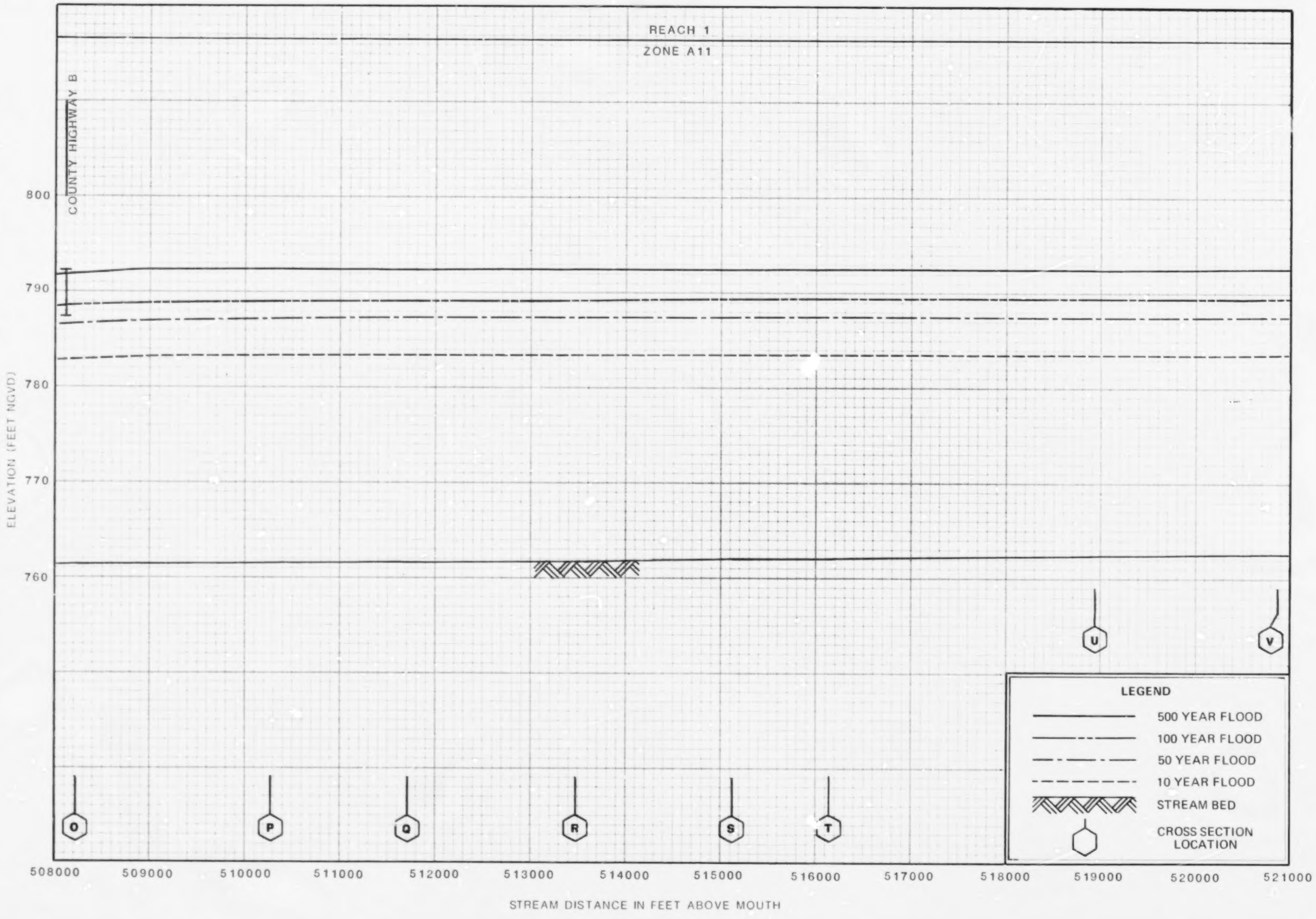

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PECATONICA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

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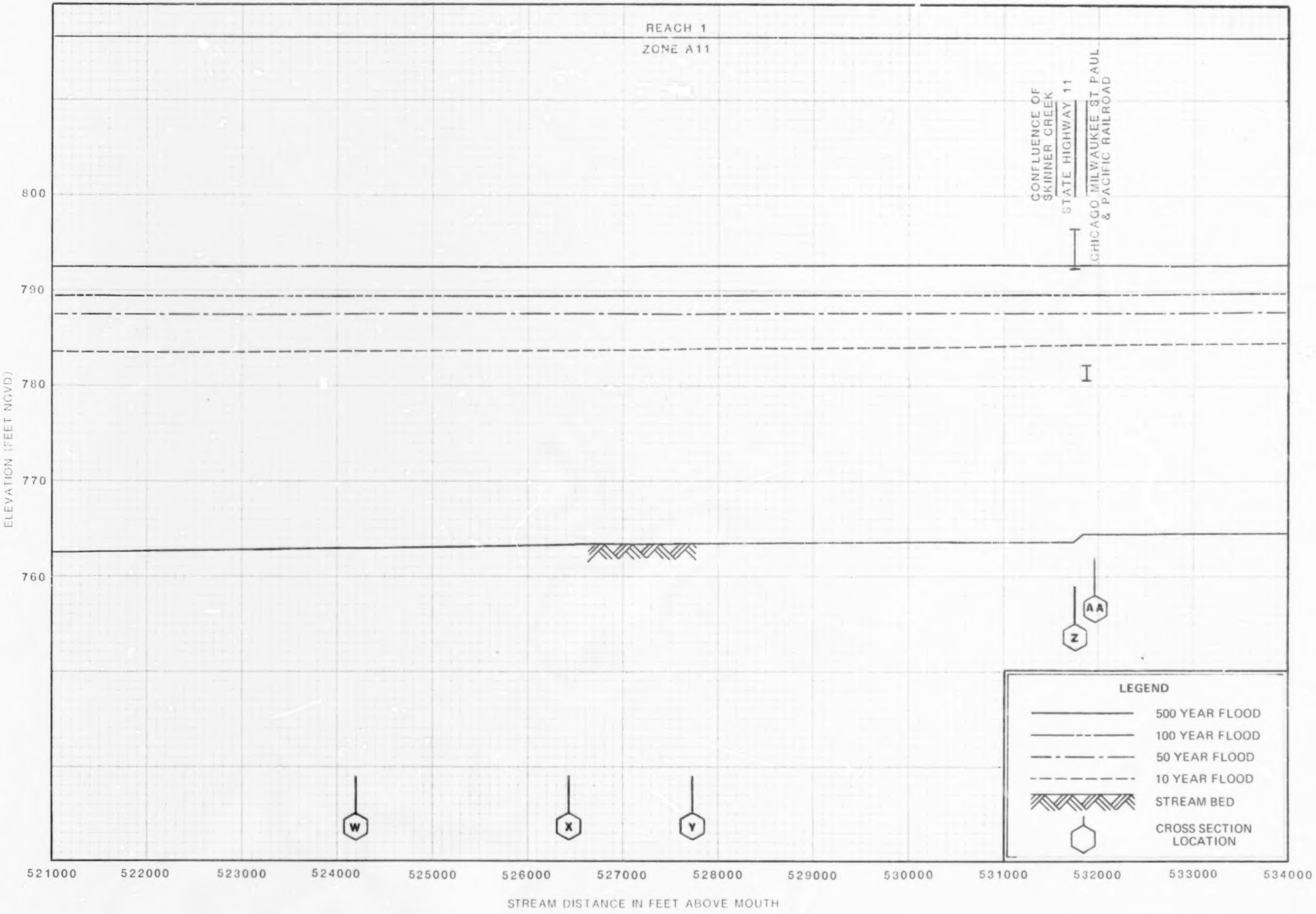

FLOOD PROFILES

PECATONICA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

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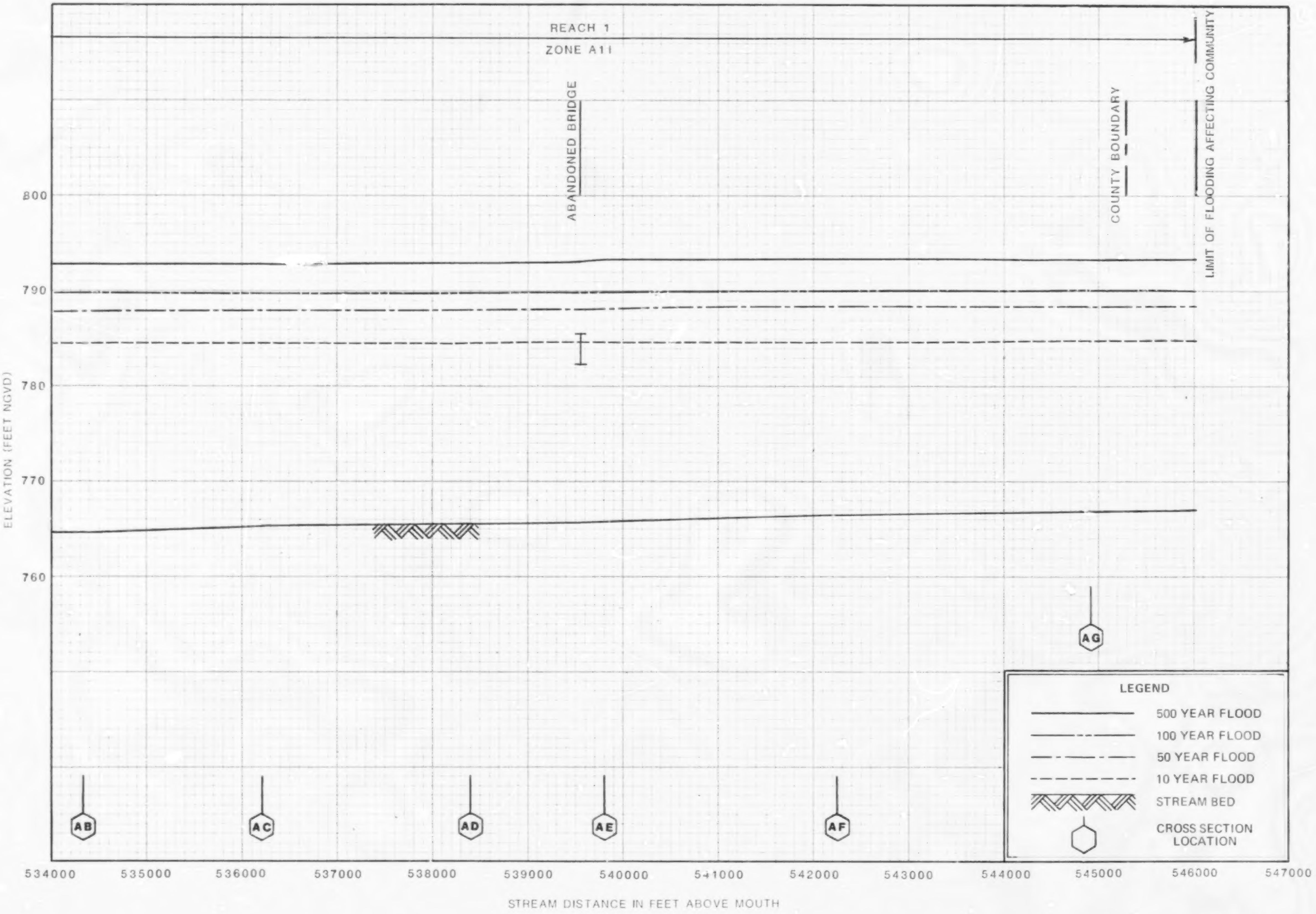

FLOOD PROFILES

PECATONICA RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

22P

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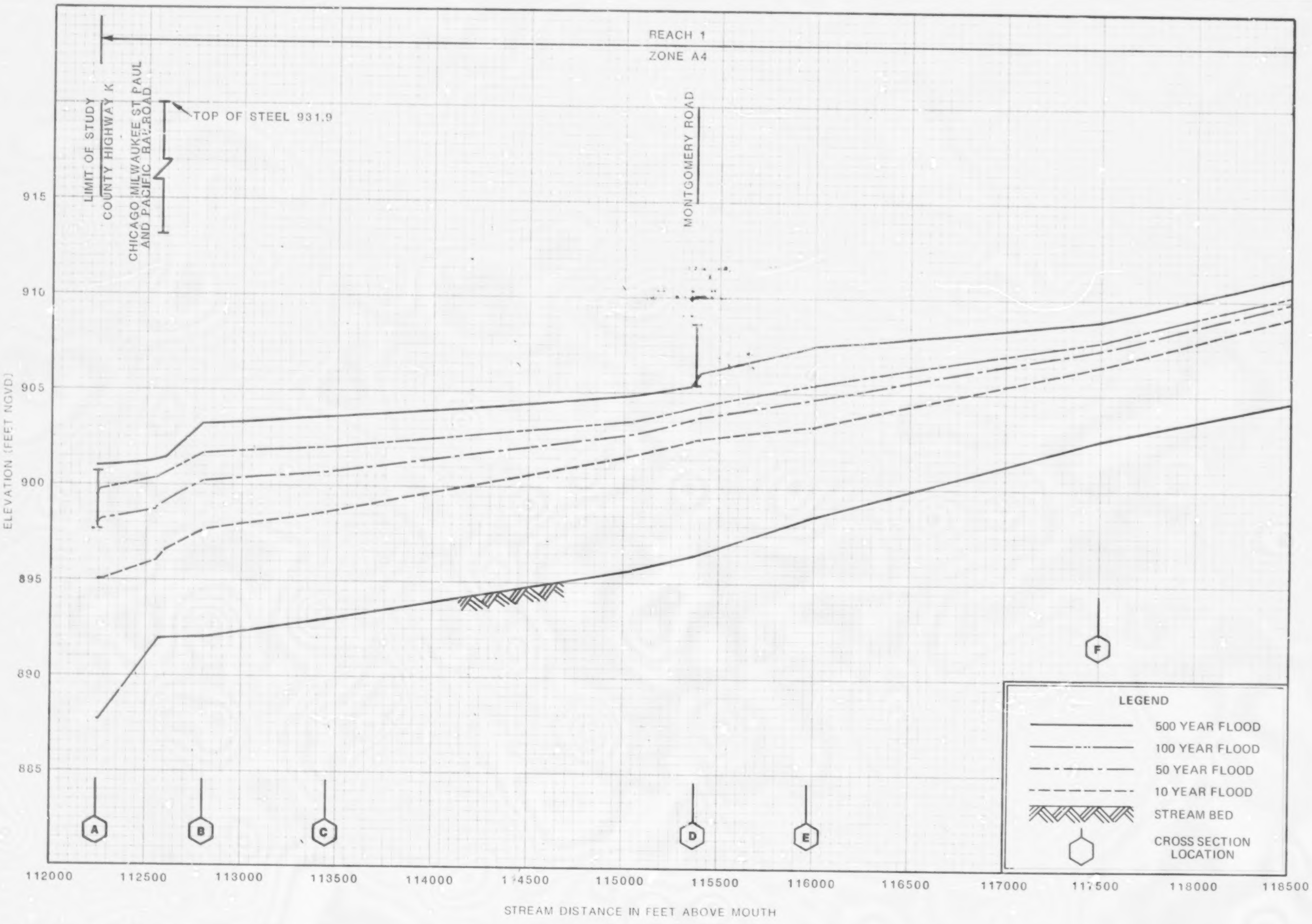


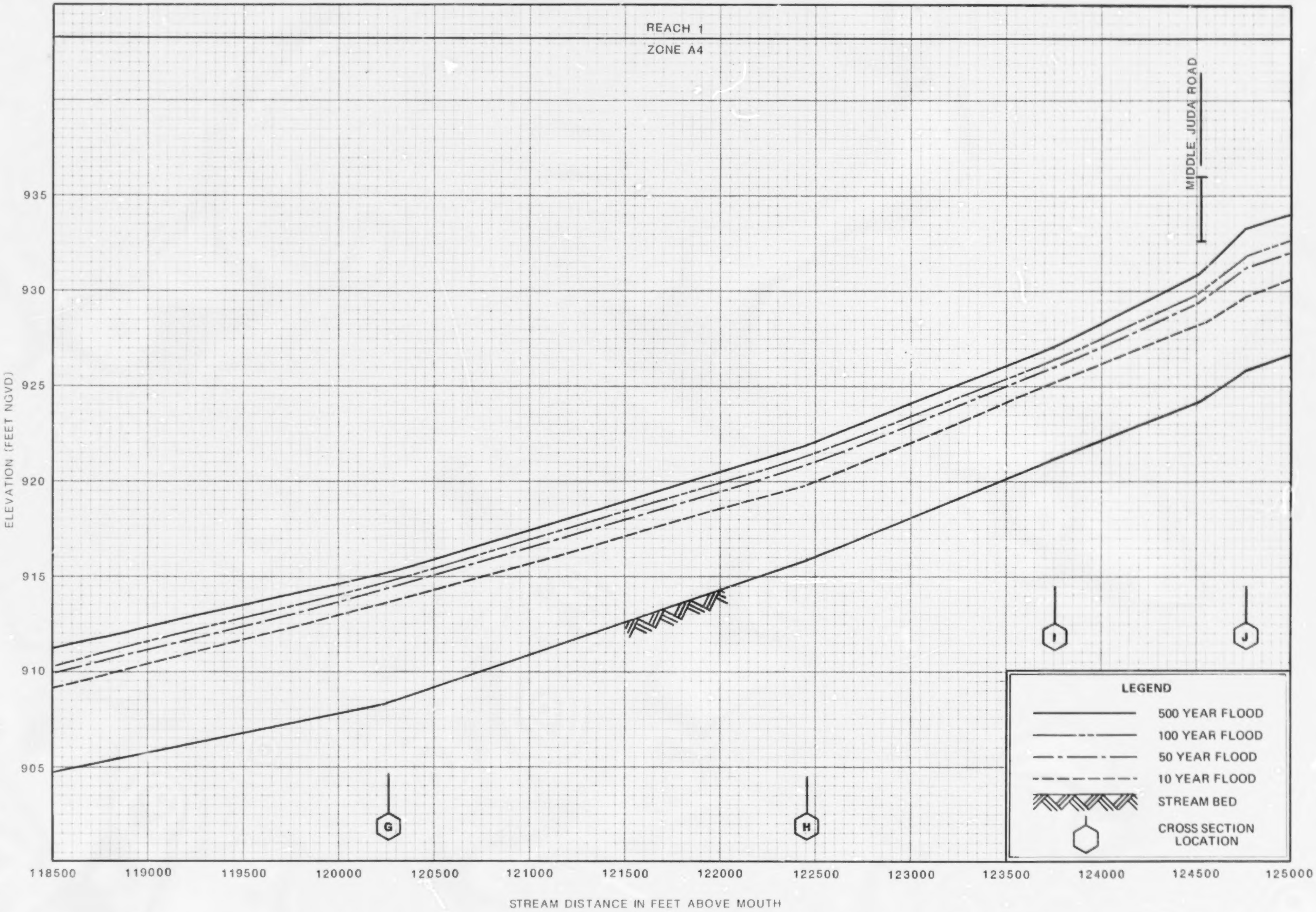
FLOOD PROFILES

RICHLAND CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)



FLOOD PROFILES

RICHLAND CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

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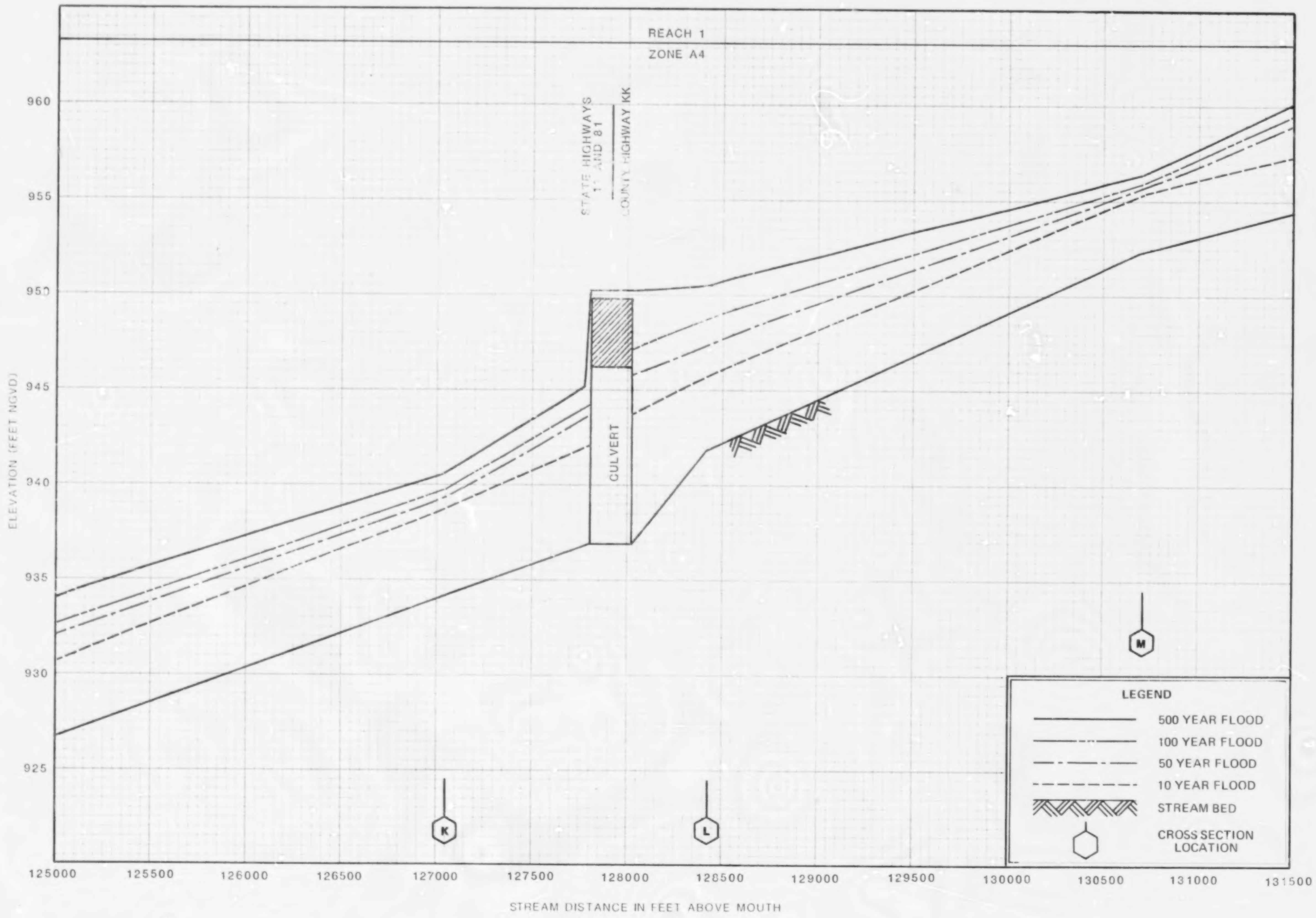

FLOOD PROFILES

RICHLAND CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

25P

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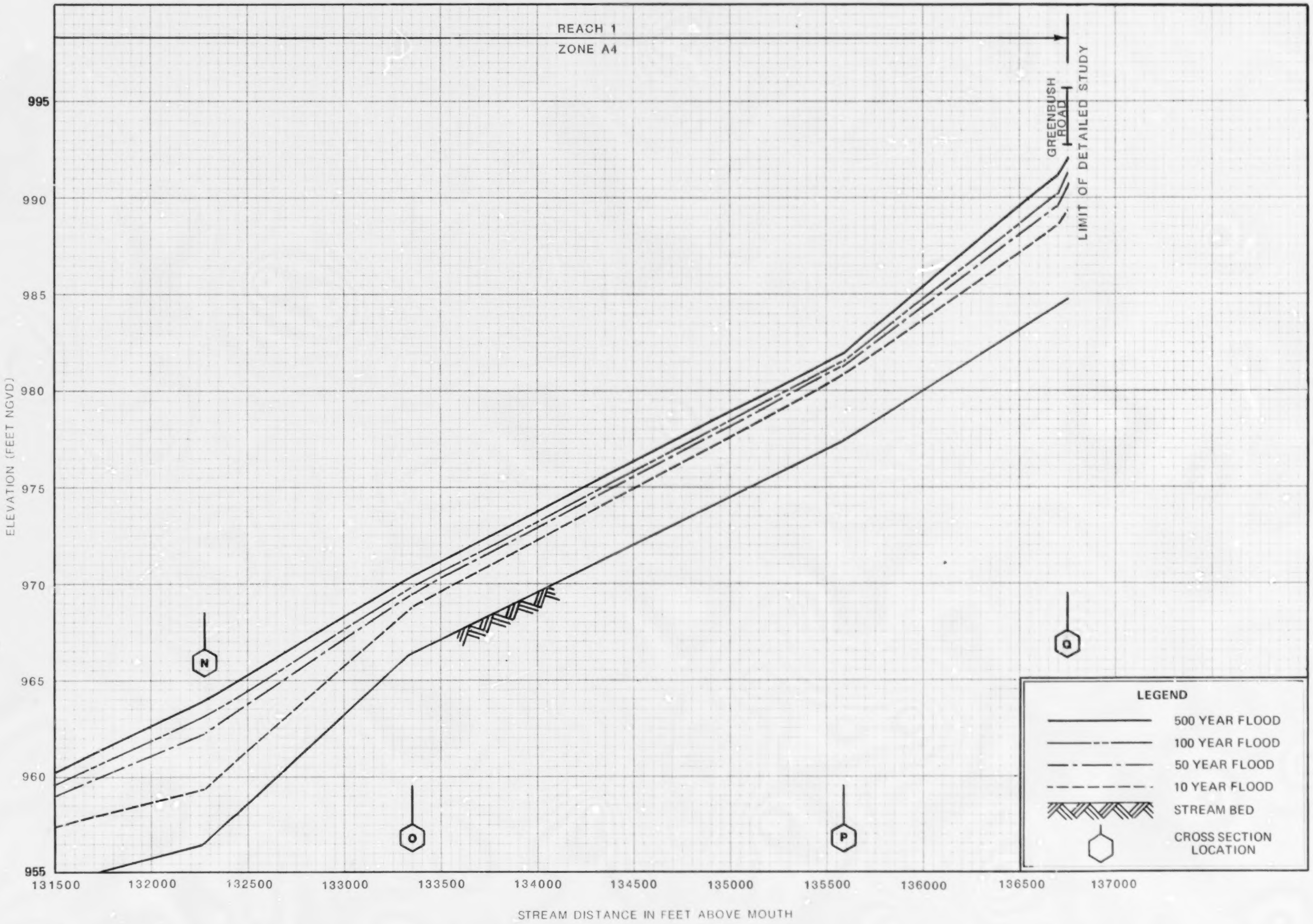


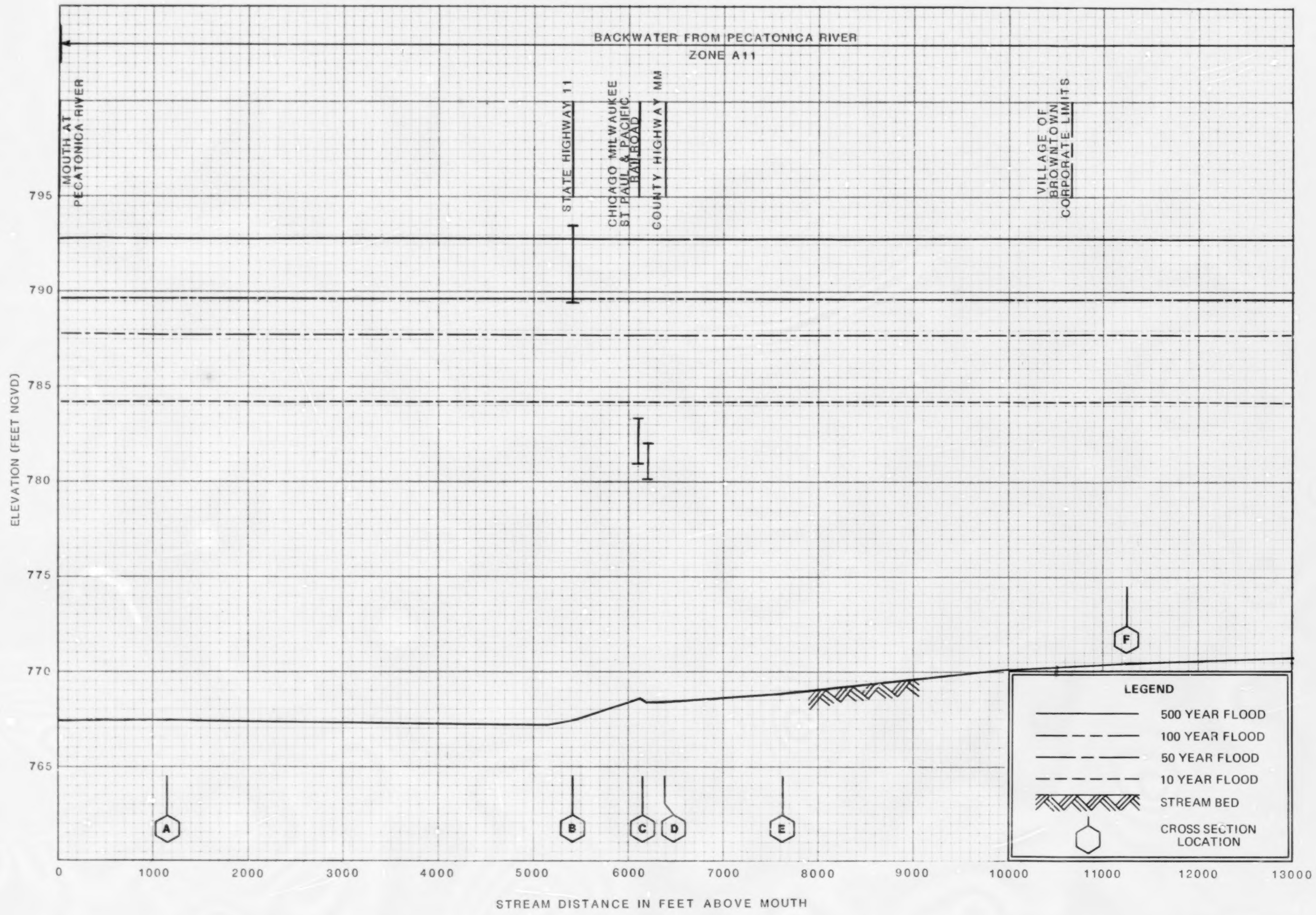
FLOOD PROFILES

RICHLAND CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)



FLOOD PROFILES

SKINNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

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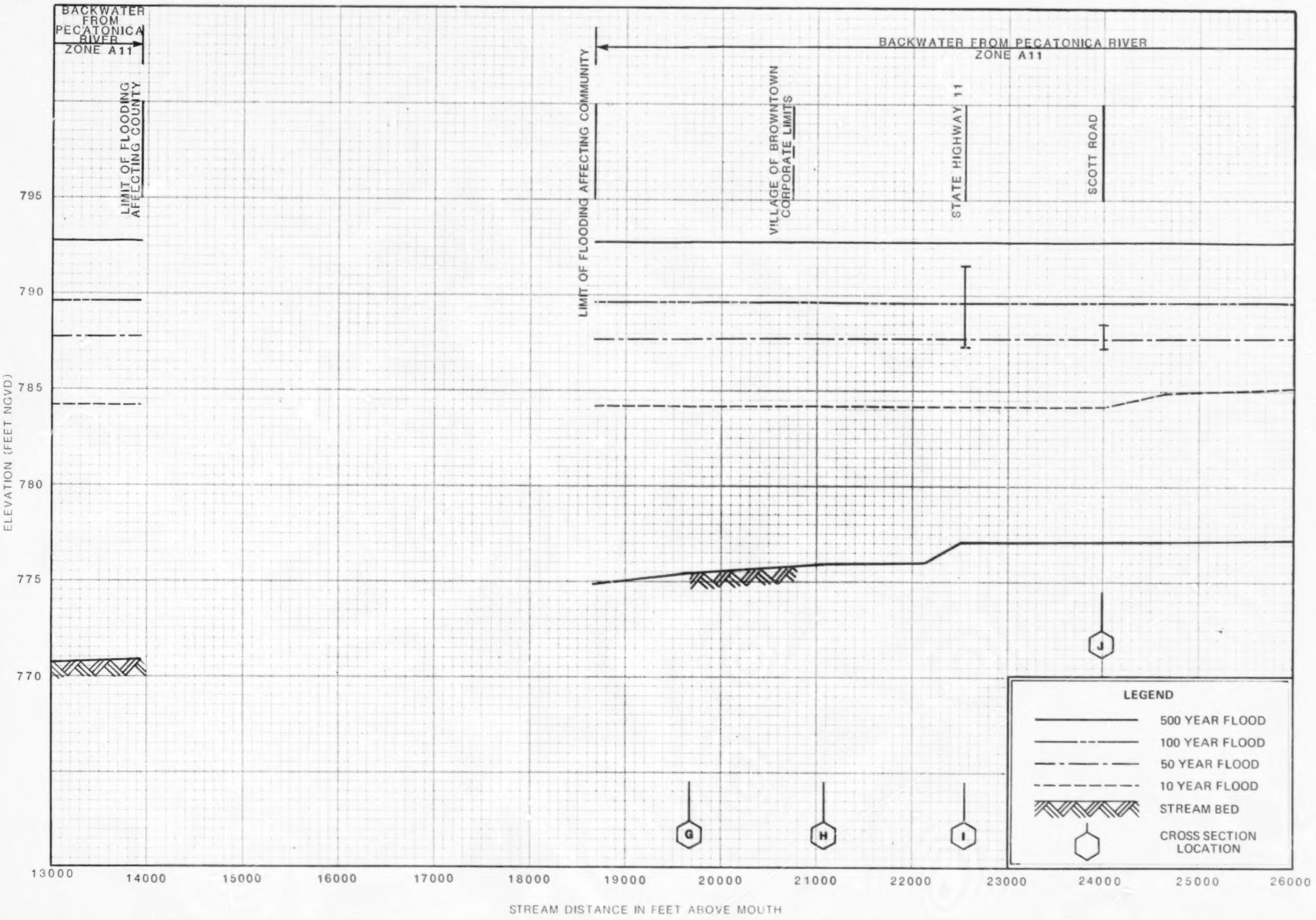

FLOOD PROFILES

SKINNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

28P

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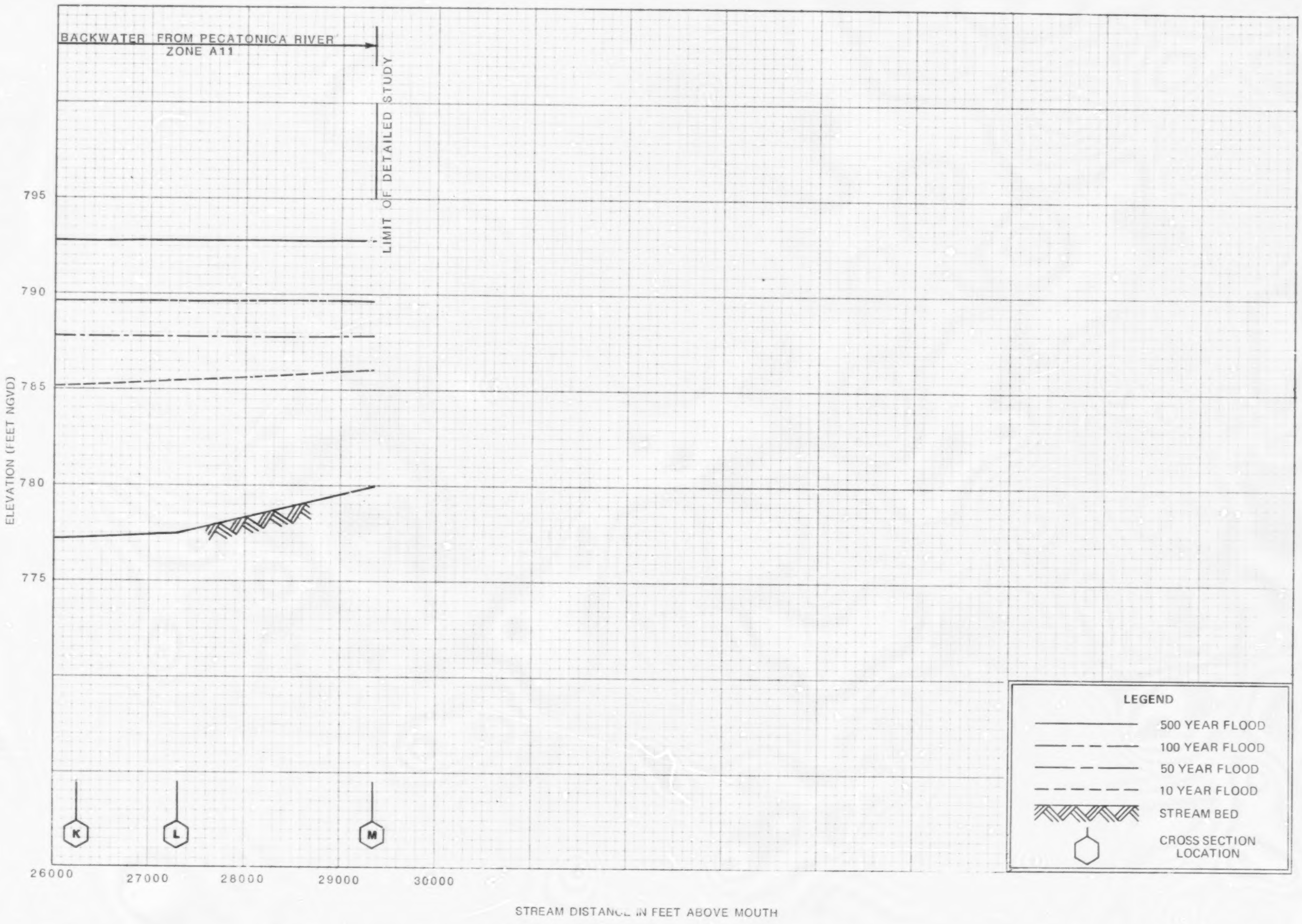

FLOOD PROFILES

SKINNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

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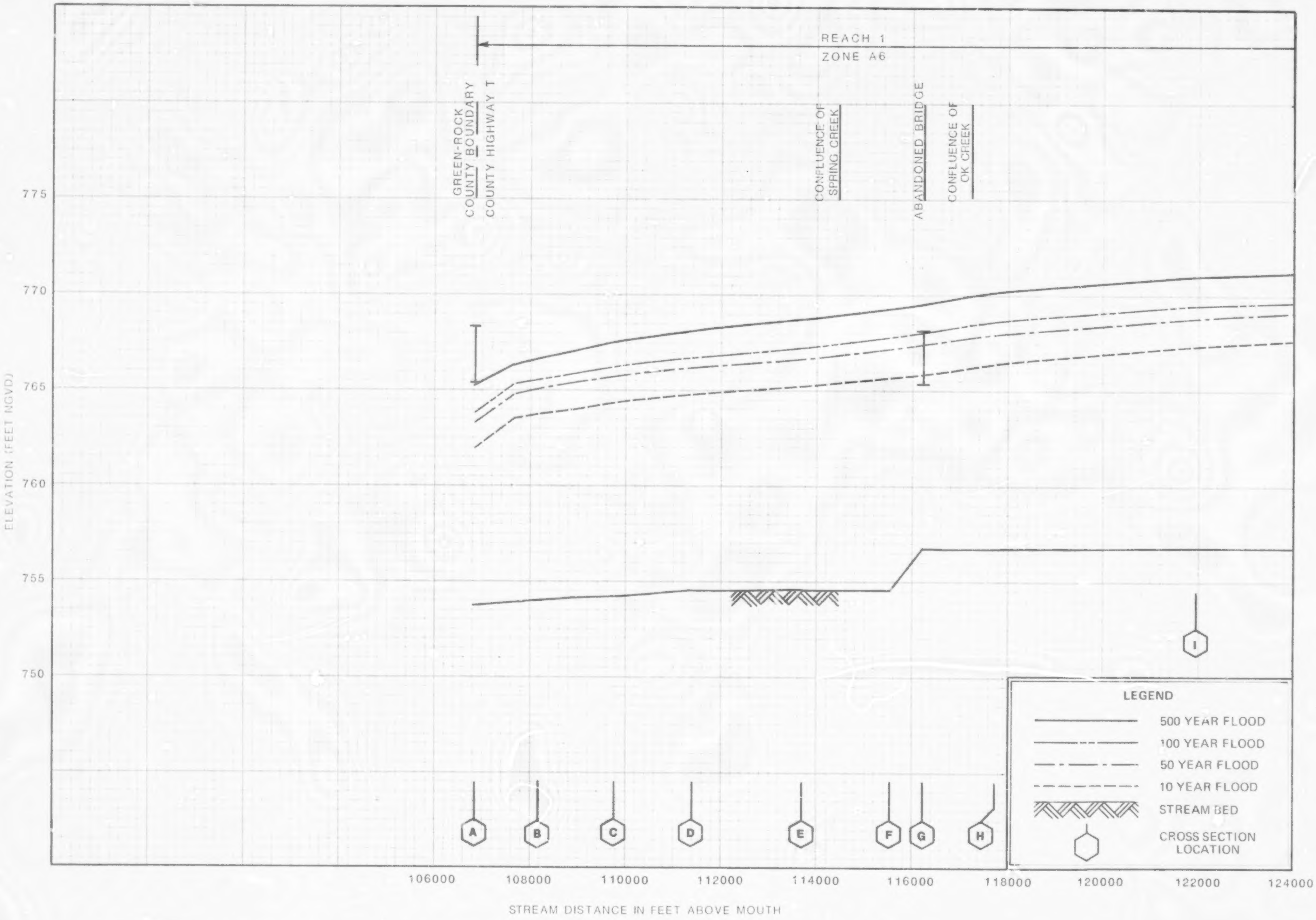

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

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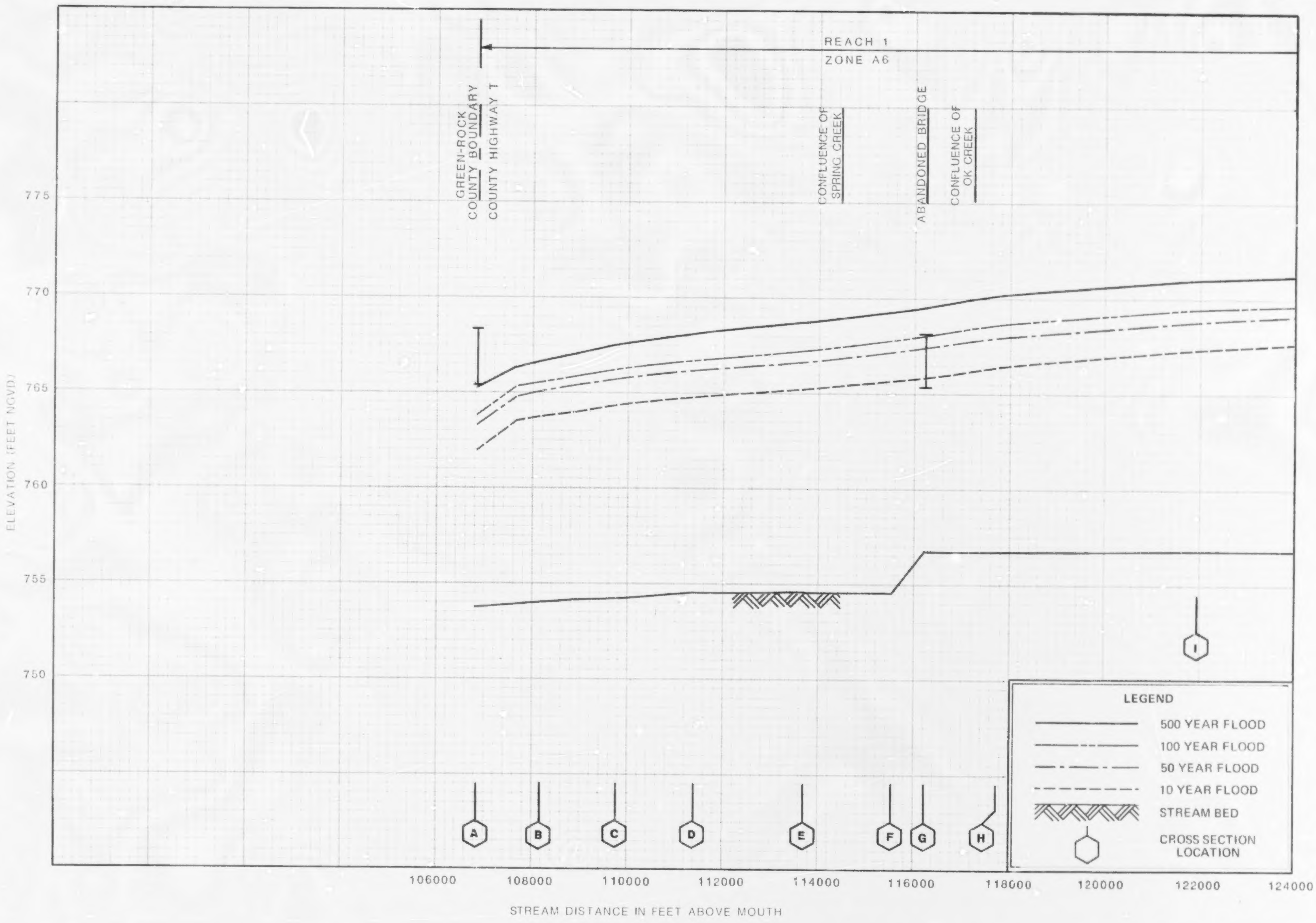

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

30P

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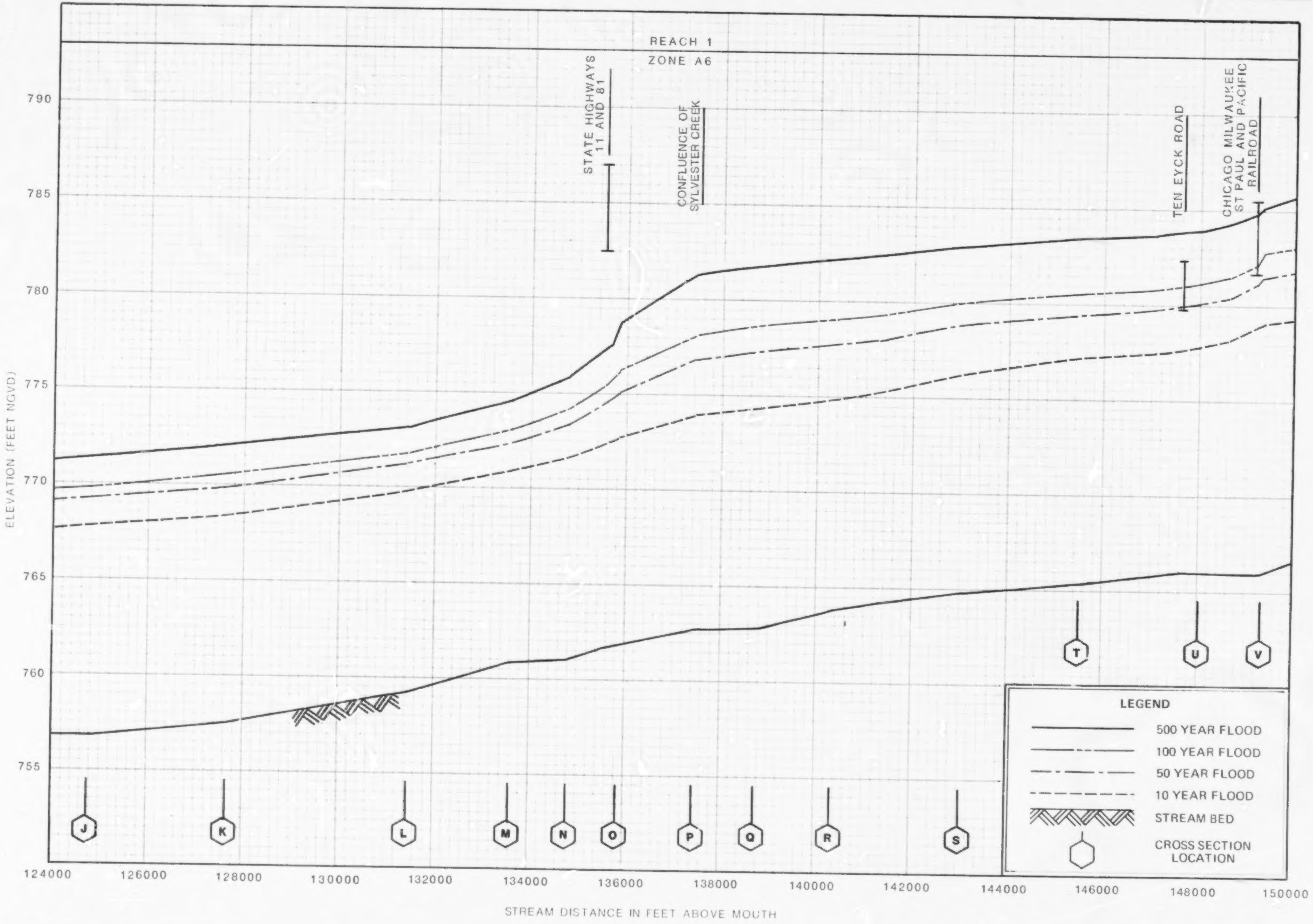

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

31P

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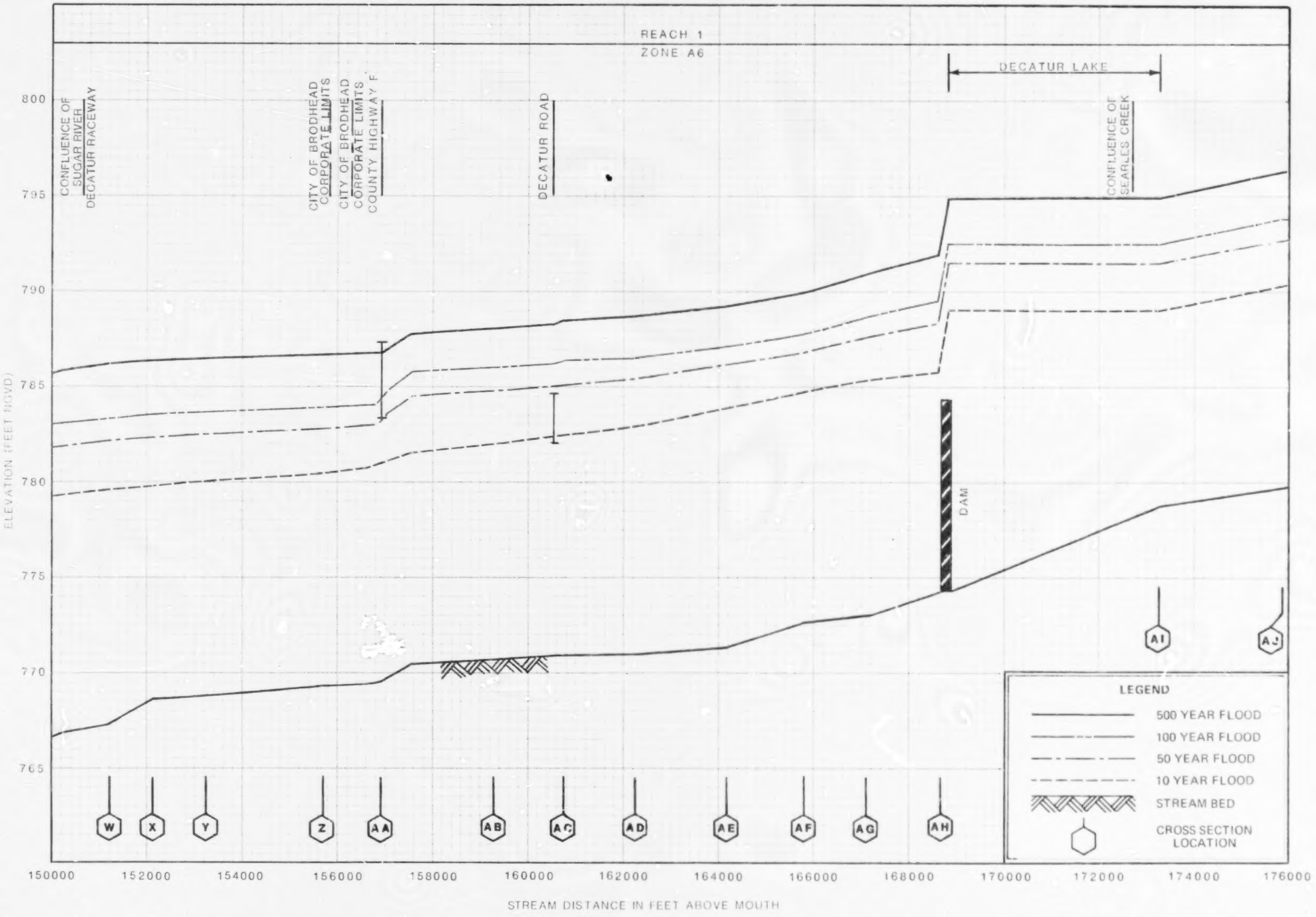

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

32P

63

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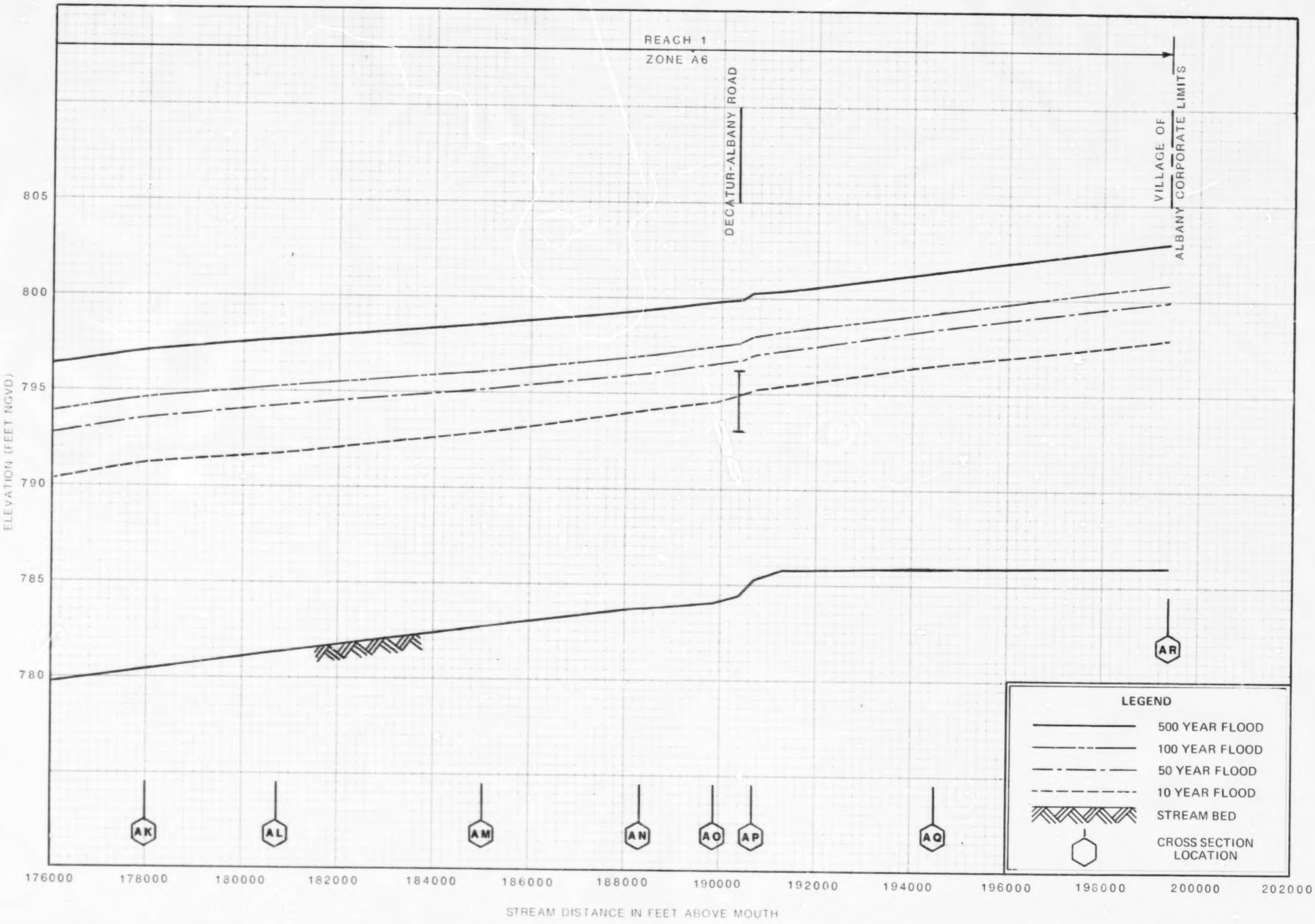

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

33P

84

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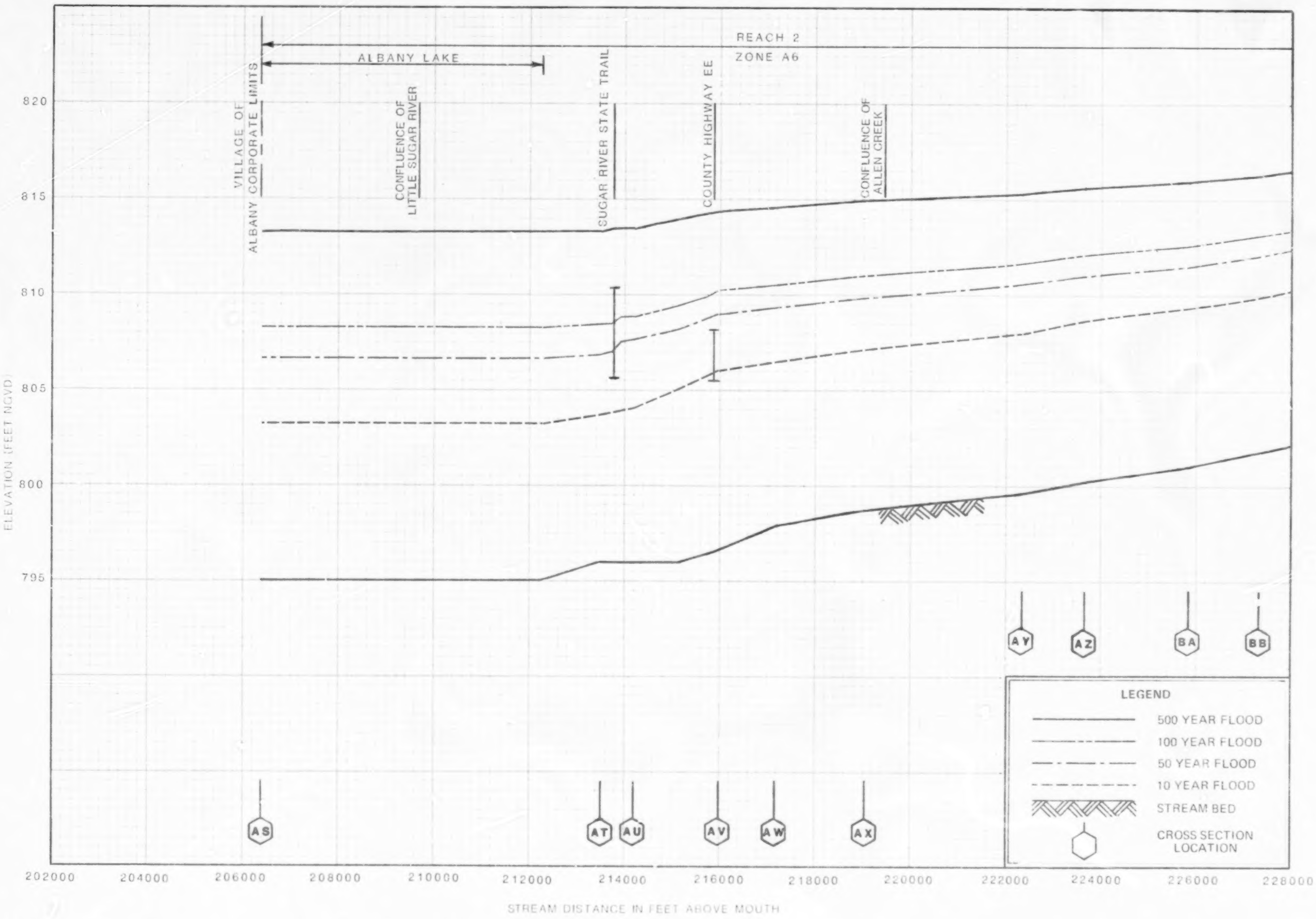


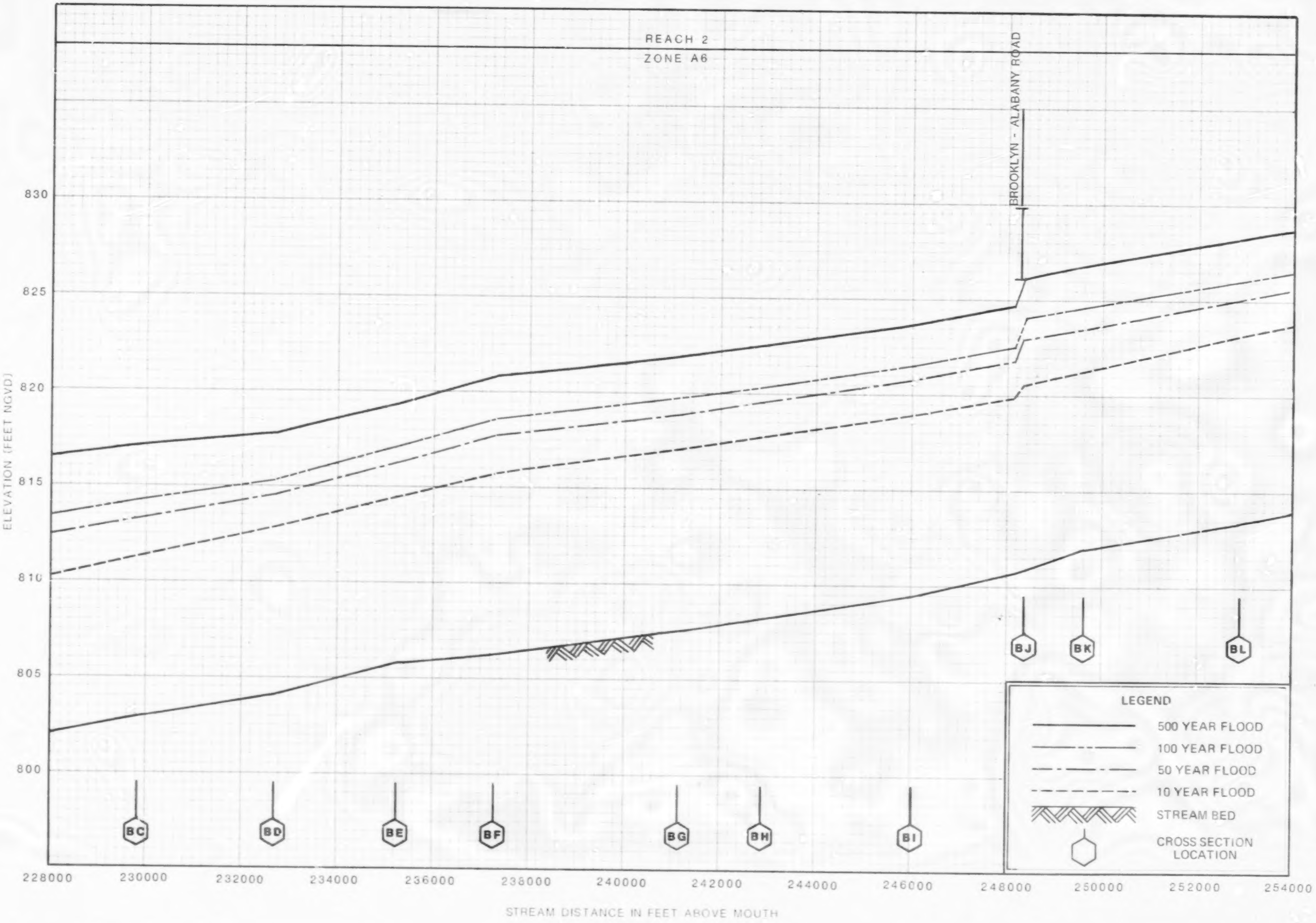
FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)



FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

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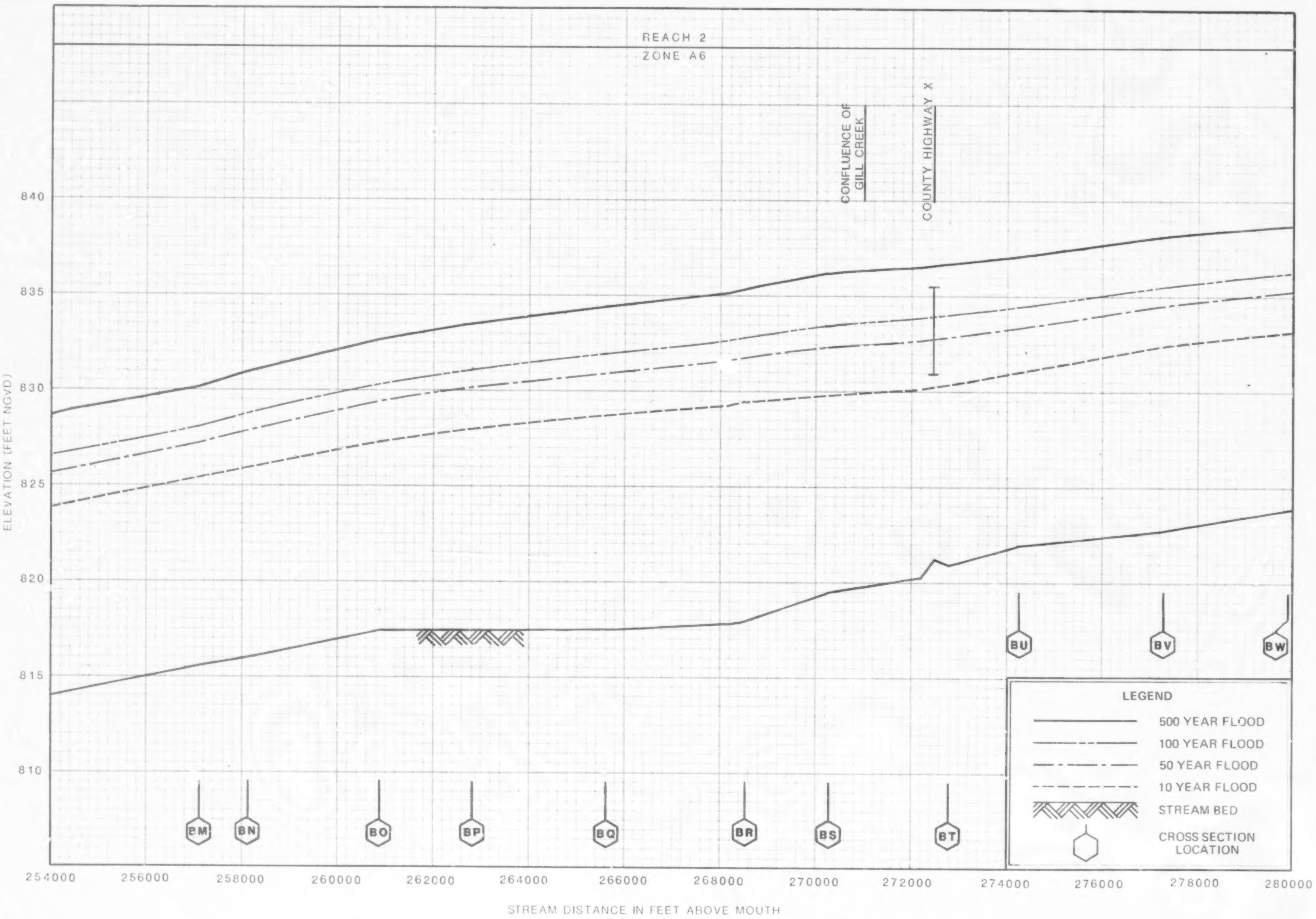

FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

36P

87

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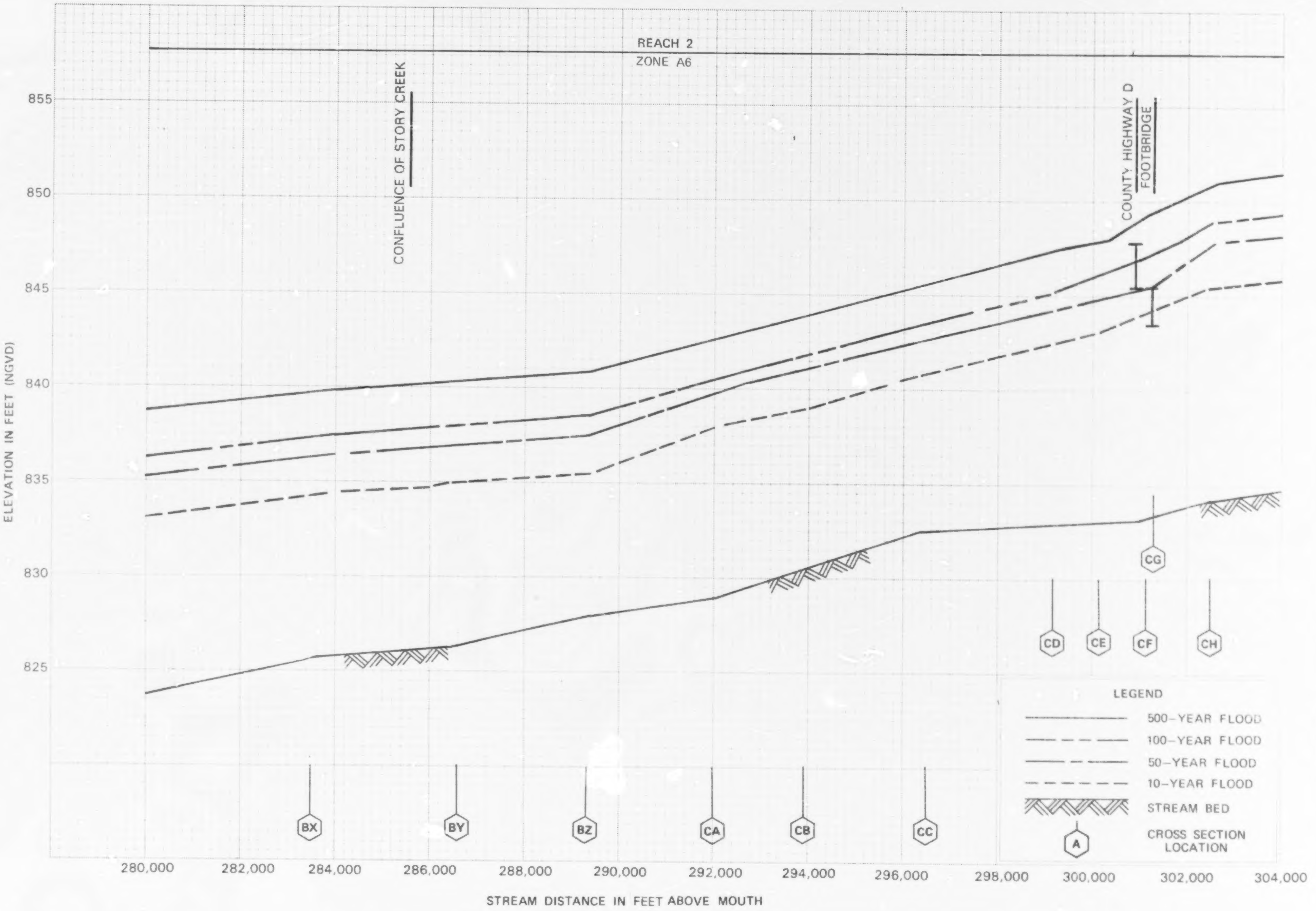


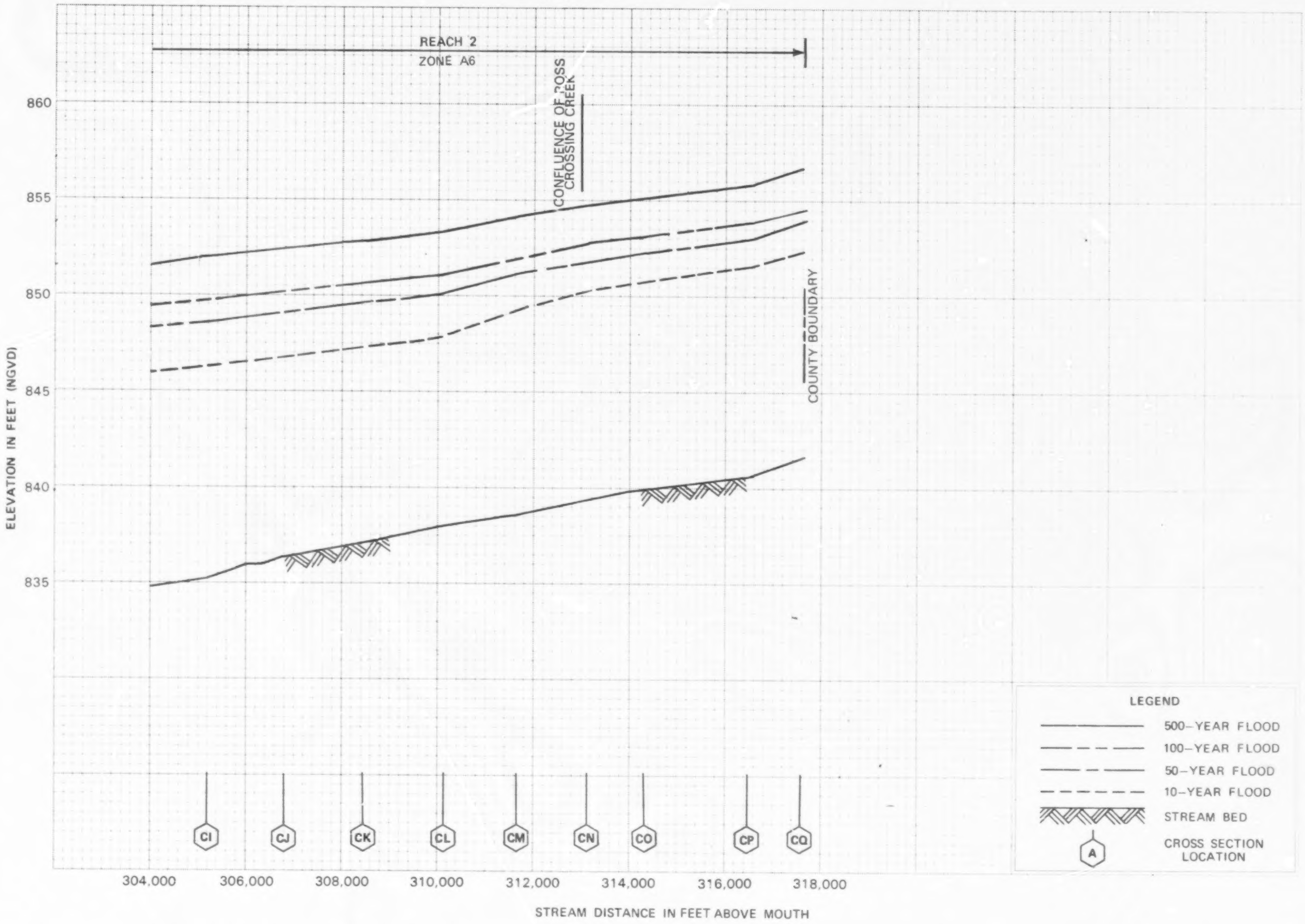
FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI
(UNINCORPORATED AREAS)

REVISED: 9/18/86



FLOOD PROFILES

SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

38P

REVISED: 9/18/86

59

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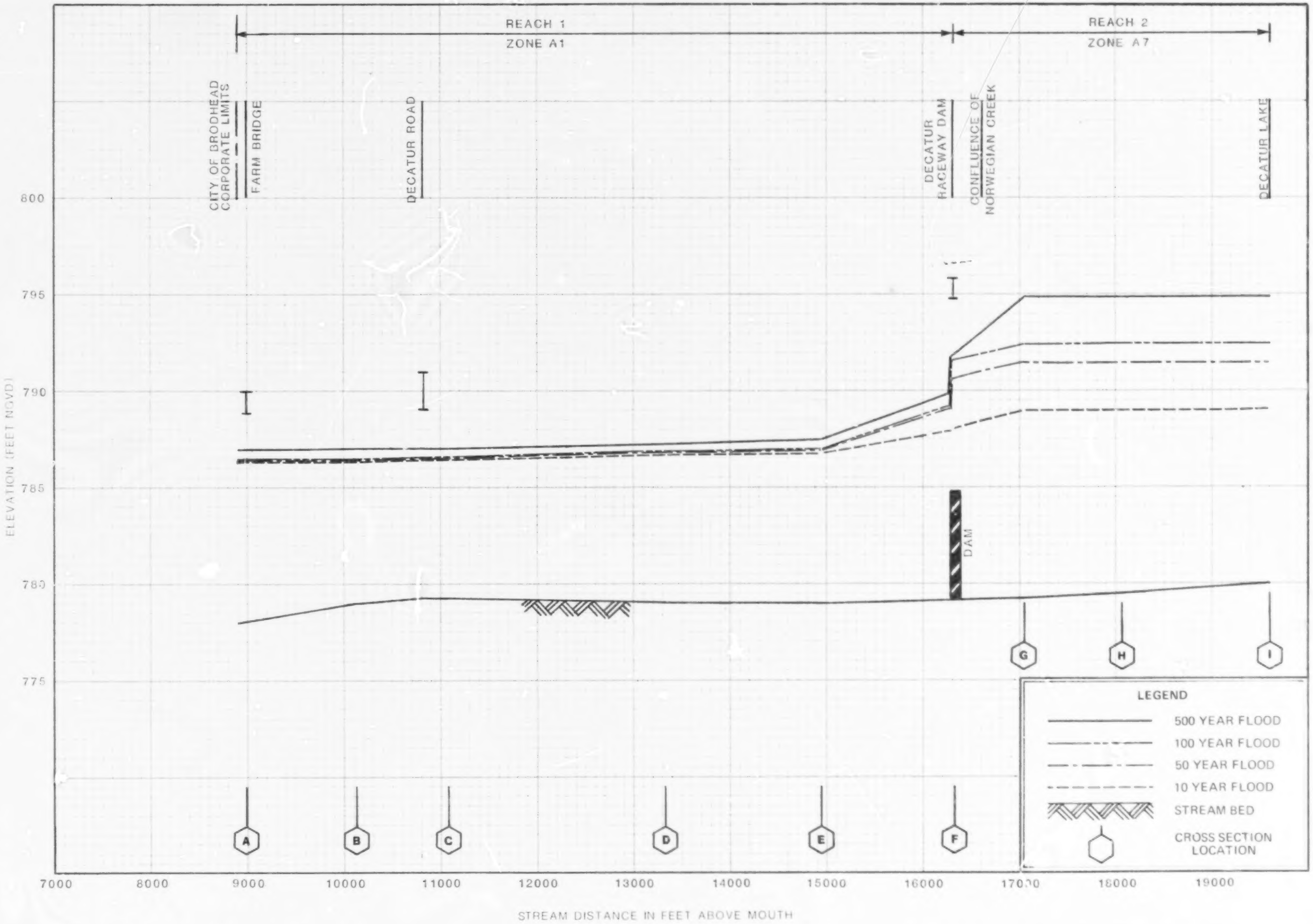

FLOOD PROFILES

SUGAR RIVER DECATUR RACEWAY

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

39P

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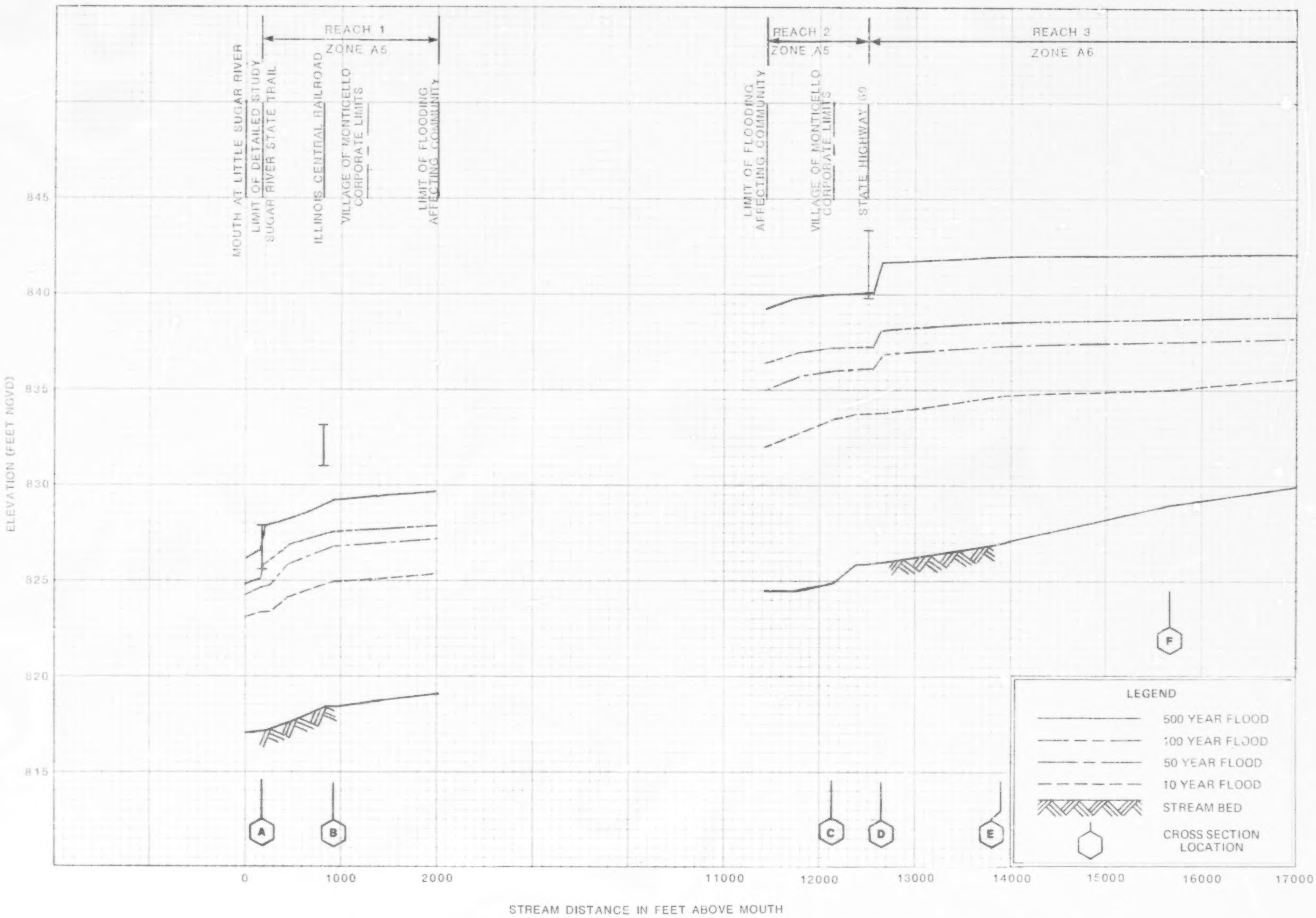
90



FLOOD PROFILES

WEST BRANCH LITTLE SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

40P

91

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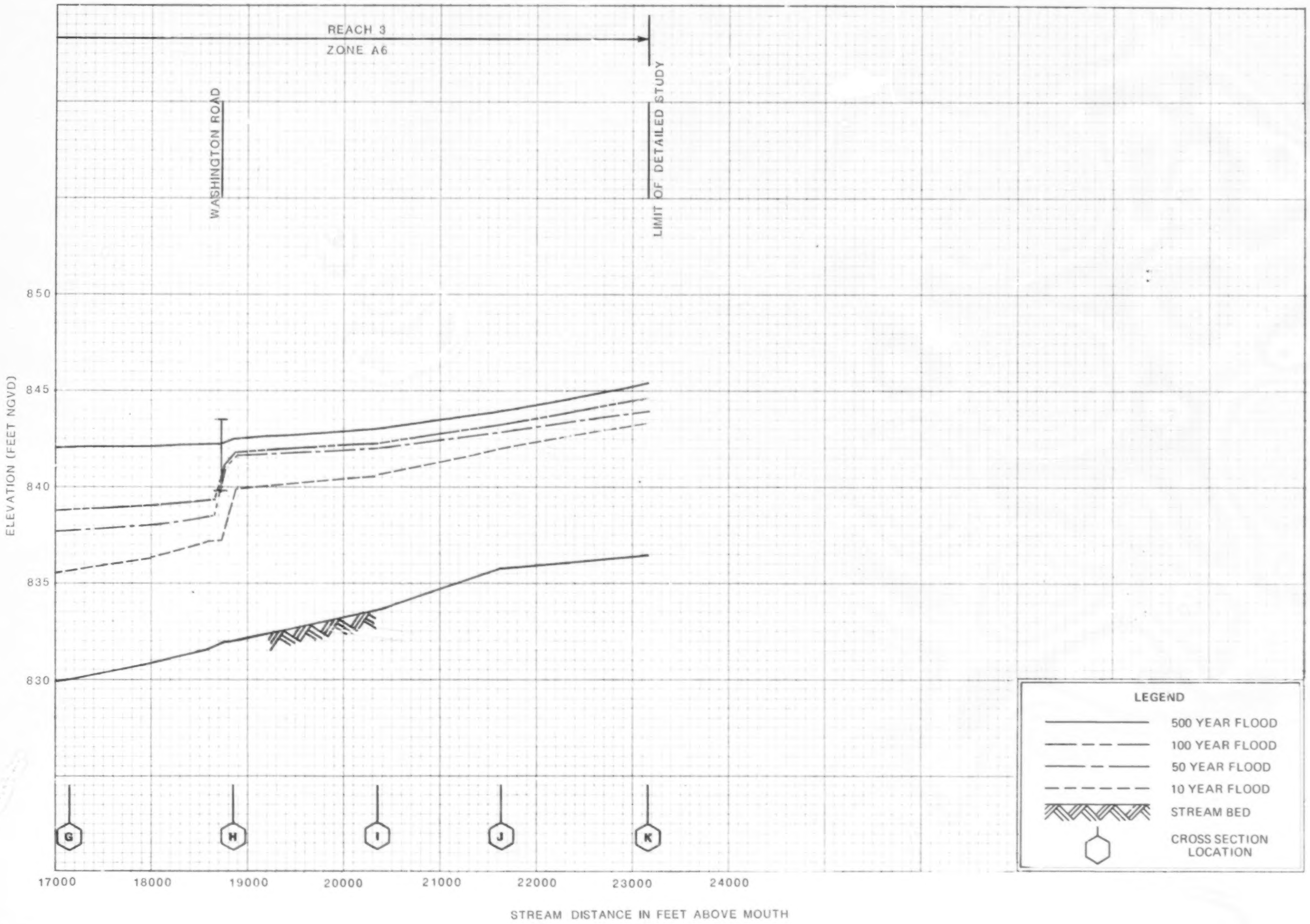

FLOOD PROFILES

WEST BRANCH LITTLE SUGAR RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

GREEN COUNTY, WI

(UNINCORPORATED AREAS)

41P

97

BEST COPY AVAILABLE